

**FUNCTIONAL SERVICING &
STORMWATER MANAGEMENT REPORT**

**50 HIGH STREET EAST
RESIDENTIAL DEVELOPMENT**

**CITY OF MISSISSAUGA
REGION OF PEEL**

**PREPARED FOR:
MOHAGANY MANAGEMENT**

**PREPARED BY:
C.F. CROZIER & ASSOCIATES INC.
211 YONGE STREET, SUITE 600
TORONTO, ON M5B 1M4**

AUGUST 2025

CFCA FILE NO. 2880-7436

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Revision Number	Date	Comments
Rev.0	August 1, 2025	Issued for First Submission (ZBA)

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1.0 Introduction

1.1 Purpose

C.F. Crozier & Associates Inc. was retained by Mahogany Management (the Client) to prepare a Functional Servicing and Stormwater Management Report in support of the Zoning By-Law Amendment (ZBA) for the property located at 50 High Street East in the City of Mississauga. This report demonstrates the proposed site can be developed in accordance with City of Mississauga and Region of Peel design guidelines from a functional servicing and stormwater management perspective.

2.0 Site Description

2.1 Existing Conditions

The existing property covers an area of 1022.21 m² (0.10 ha) and is bound by residential apartment buildings to the north, east and west, and High Street East to the south. The site lies within a residential land use area. The existing site contains a 3-storey residential building with at-grade parking located at the rear of the building. The unit count of the existing 3-storey residential building has been confirmed by the Client via email correspondence, which is included in **Appendix A** for reference. The existing unit count was used to calculate the existing population of the subject site.

Table 1 below summarizes the existing population of the subject site.

Table 1: Existing Population Density

Unit Type	Number of Units	Equivalent Population Density	Population
1 Bedroom	11	1.7 (person/hectare)	19
Total Existing Residential Population			19

KRCMAR Surveyor Ltd. was retained by the Client to prepare a topographic survey of the subject site. A copy of the topographic survey is included in **Appendix A** for reference.

Additionally, records drawings obtained from the City of Mississauga and the Region of Peel have been included in **Appendix A** for reference.

2.2 Proposed Development Concept

The proposed residential development includes the construction of an 11-storey residential building. The building is proposed to have an at-grade accessible parking stall within the covered at-grade vehicular access area. The development is proposed to have a total of 96 residential units and vehicular access to the site is provided via High Street East.

The proposed population for the subject site was calculated using the equivalent population density from the Region of Peel Linear Wastewater Standards dated March 29th, 2023, and residential unit information was obtained from the latest site plan and statistics provided by Chamberlain Architect

Services Limited, which is included in **Appendix A** for reference. **Table 2** below summarizes the proposed population for the subject property.

Table 2: Proposed Population Density

Unit Type	Number of Units	Equivalent Population Density	Population
1 Bedroom	60	2.7 (person/unit)	162
2 Bedroom	35		95
3 Bedroom	1		3
Total Proposed Residential Population			259

The proposed population equivalent was calculated to be greater than 475 person/hectare. Therefore, the population equivalent used for the design is based on a density of 2.7 person per unit using the equation below:

$$(2.7\text{ppu} \times \text{No. Units}) \div \text{Area} = \text{person/hectare}$$

$$(2.7 \times 96) \div 0.1 = 2592 \text{ person/hectare}$$

As a result, the total proposed population of the subject site is calculated to be 259 persons.

2.3 Reference Information

The following documents were referred to in preparation of this report, and offer background information regarding the existing infrastructure surrounding the proposed development:

- Region of Peel – Linear Wastewater Standards, dated March 29th, 2023
- Region of Peel – Public Works Design, Specifications & Procedures Manual, Watermain Design Criteria, dated Revised June 2010
- Region of Peel – Public Works Stormwater Design Criteria and Procedural Manual, dated June 2019 (Version 2.1)
- City of Mississauga – Transportation & Works Department, Development Requirements Manual, Section 8 – Storm Drainage Design Requirements, dated November 2020
- Fire Underwriters' Survey – Water Supply for Public Fire Protection, dated 2020

3.0 Water Servicing

The following section of the report analyses the existing and proposed water servicing demands for the subject site. The Region of Peel – Linear Wastewater Standards (March 29, 2023) and Region of Peel – Public Works Design, Specifications & Procedures Manual, Watermain Design Criteria, dated (Revised June 2010) was referenced to calculate the domestic and fire flow demands for the subject site.

3.1 Existing Water Servicing

According to the as-built records provided by the City of Mississauga and the Region of Peel, the following water services exist in proximity to the subject site:

- 200 mm diameter watermain along High Street East

As per the Region of Peel Water Pressure Zones Map, the site is located within Pressure Zone 1 (PZ 1). The Water Pressure Zones Map is included in **Appendix B** for reference.

Based on pre-development conditions, a summary of the results is presented in **Table 3**, with detailed calculations provided in **Appendix B**.

Table 3: Existing Domestic Water Demand

Type of Use	Average Daily Demand (L/s)	Maximum Day Demand (L/s)	Peak Hourly Demand (L/s)
Residential	0.06	0.12	0.18

3.2 Proposed Water Servicing

The proposed water servicing strategy for the development consists of one (1) connection to the existing 200 mm diameter watermain along High Street East and will consist of a 100 mm diameter PVC domestic and 150 mm diameter PVC fire line. Each unit will be serviced internally to the building through mechanical design, which will be completed at the time of detailed design by a mechanical engineer.

Considering the height of the building is less than 84 meters, the building will not require to be serviced by two (2) separate watermains adhering to the Ontario Building Code (OBC) Section 3.2.9.7.

The proposed water services will be equipped with a property line valve and box per Region of Peel standards. The proposed water meter, backflow preventer, and internal building water servicing will be installed per the mechanical details and specifications. The site is proposed to be serviced by a private hydrant near the building entrance facing High Street East, which is located 9 meters from the proposed Siamese connection.

Refer to the **Servicing Plan – C102** for further details.

The domestic water demand for the subject site was calculated with reference to the Region of Peel – Linear Wastewater Standards (March 29, 2023) and Region of Peel – Public Works Design, Specifications & Procedures Manual, Watermain Design Criteria, dated (Revised June 2010). An average residential daily water demand of 280 L/capita/day was used in conjunction with the occupancy densities described in **Table 2**.

A summary of the results is presented in **Table 4**, with detailed calculations provided in **Appendix B**.

Table 4: Proposed Domestic Water Demand

Type of Use	Average Daily Demand (L/s)	Maximum Day Demand (L/s)	Peak Hourly Demand (L/s)
Residential	0.84	1.68	2.52

3.3 Fire Flow Demand

The fire flow requirements for the proposed development were calculated based on the methodology identified in the current version of the *Water Supply for Public Fire Protection: A Guide to Recommended Practice in Canada (2020)* prepared by the Fire Underwriters' Survey (FUS).

Fire Flow requirements were calculated based on the following parameters:

- (Type 1) Fire Resistive Construction materials with a construction coefficient of 0.6, where all structural elements, walls, columns, arches, floors, and roofs are constructed with a minimum 2-hour fire resistance rating, and all materials used in the construction of the structural elements, walls, columns, arches, floors and roofs are constructed with non-combustible materials.
- For a building classified with a construction coefficient below 1.0, with vertical opening properly protected in accordance with the National Building Code, the Total Effective Area was calculated to be 895.39 m², applying 100% of the single largest floor plus 25% of each of the two immediately adjoining floors, based on floors 4, 5 and 6 from the latest site statistics prepared by Chamberlain Architect Services Limited.
- An Occupancy and Contents Adjustment Factor of -15% for Limited Combustible contents, falling under a Group C Residential occupancy (Table 3 of the FUS)
- An automatic fully supervised sprinkler protection system designed and installed in accordance with NFPA 13 (50% reduction factor).
- Exposure charges were included in the calculations to account for various existing residential properties in proximity to the subject site.

As a result, the fire flow demand is calculated to be 50 L/s (3,000 L/min). In accordance with the FUS guidelines, the fire flow for residential areas shall not be less than 80 L/s (4,800 L/min). Therefore, the fire flow demand of the proposed development is increased to 80 L/s (4,800 L/min) in adherence to the FUS guidelines. Detailed calculations are included in **Appendix B**. Additionally, an email from the architect confirming the construction type, occupancy category and the sprinkler system is included in **Appendix B** for reference.

3.4 Hydrant Flow Test

One (1) hydrant flow test was performed by Watermark Solutions on June 11th, 2025, on the existing 200 mm diameter watermain along High Street East. The results indicate that at 20 psi residual pressure, a maximum of 567 L/s (8,983 USGPM) projected flow is available within the existing 200 mm diameter watermain along High Street East.

A detailed report of the hydrant flow test is provided in **Appendix B** for reference. Based on the estimated maximum day plus fire flow demand of 81.68 L/s and the hydrant test report, the existing municipal water supply can support the proposed development without the need of external upgrades or retrofit.

4.0 Sanitary Servicing

The following section of the report analyses the existing and proposed sanitary servicing conditions for the subject site. The Region of Peel – Linear Wastewater Standards (March 29, 2023) was referenced to calculate the existing and proposed sanitary demands for the subject site.

4.1 Existing Sanitary Servicing

According to the as-built records provided by the City of Mississauga and the Region of Peel, the following water services exist in proximity to the subject site:

- 375 mm diameter sewer along High Street East

Based on the Region of Peel record drawing (No. 25842-D), it is determined that the existing residential building has a sanitary service connection to the existing 375 mm diameter sewer along High Street East. The location of the existing sanitary service is shown on the **Servicing Plan – C102**.

The existing sanitary flows were calculated based on the Region of Peel - Linear Wastewater Standards (March 29, 2023) in conjunction with the existing occupancy densities described in **Table 1**. A summary of the results is shown in **Table 5**, with detailed calculations provided in **Appendix C**.

Table 5: Existing Sanitary Design Flows

Type of Use	Average Flow (L/s)	Peaking Factor (M)	Peak Flow (L/s)	Infiltration Flow (L/s)	Total Flow (L/s)
Residential	0.06	4.00	0.25	0.03	0.28

4.2 Proposed Sanitary Servicing

The subject site is proposed to be serviced by one (1) 150 mm diameter sanitary service connection to the existing 375 mm diameter sanitary sewer along High Street East. The proposed 150 mm diameter sanitary sewer connection includes a control manhole located at the property line fronting High Street East.

Refer to the **Servicing Plan – C102** for further details.

4.3 Sanitary Design Flows

The sanitary design flow for the subject site was calculated with reference to the Region of Peel – Linear Wastewater Standards (March 29, 2023). An average residential wastewater flow of 290 L/capita/day was used in conjunction with the occupancy densities described in **Table 2**. Peaking

factors were applied to the residential sewage flows to obtain the total estimated design sewage flow.

Table 6 below summarizes the results and **Appendix C** contains detailed calculations of the sanitary flow for the proposed development.

Table 6: Proposed Sanitary Design Flows

Type of Use	Average Flow (L/s)	Peaking Factor (M)	Peak Flow (L/s)	Infiltration Flow (L/s)	Total Peak Flow (L/s)
Residential	0.87	4.00	3.48	0.03	3.51

5.0 Groundwater Drainage Conditions

A Geotechnical Investigation for the subject site was completed by Toronto Inspection Ltd. dated June 4th, 2025, which detailed the site's subsurface and groundwater conditions. The major conclusions of the geotechnical report are summarized in the bullets below:

- The field work for the investigation consisted of drilling four (4) sampled boreholes (25BH-1 to 25BH-4), extending to depths of 3.8m to 5.2m from grade.
- Groundwater observations were made in the open boreholes during and upon the completion of drilling. Boreholes 25BH-1 and 25BH-3 were completed as monitoring wells for the determination of groundwater conditions.
- Free water was recorded in the open boreholes 25BH-1 and 25BH-3 at depths of 3.51m and 5.03m from grade.
- During the groundwater monitoring round on June 4, 2025, free water, measured in the monitoring well installed at boreholes 25BH-1 and 25BH-3, was at depths of 1.30m to 4.16m from grade.

At this time, a standard foundation design has been recommended by the geotechnical engineer. Further investigation is to be completed to determine the short-term and long-term groundwater dewatering rates as well as the quality of the groundwater for discharge purposes. Refer to the Geotechnical Investigation prepared by Toronto Inspection Ltd. under a separate cover for more details.

6.0 Drainage Conditions

6.1 Existing Drainage Conditions

According to the as-built records provided by the City of Mississauga and the Region of Peel, the following is existing stormwater infrastructure surrounding the subject site:

- 825 mm diameter sewer along High Street East

Based on the topographical survey, the subject site generally slopes from northwest to southeast draining overland runoff to the High Street East right-of-way, which is then captured by curbside catch basins. The catch basins are connected to the existing 825 mm diameter storm sewer along High Street East. Refer to **Appendix D** for the calculated pre-development catchment area and associated weighted runoff coefficient.

6.2 Proposed Drainage Conditions

Storm flows from the building will be directed to roof drains and an on-site catch basin, which will capture a majority of the overland flows. This flow will then ultimately discharge to an oil and grit separator prior to discharging into the proposed stormwater management tank located downstream.

It is proposed to connect to the existing 825 mm diameter storm sewer along High Street East. The proposed connection includes a control manhole located at the property line within the vehicular access drive aisle.

Due to the existing low point located at the southern corner of the site, it is proposed to have uncontrolled flows draining to the High Street East right-of-way. The uncontrolled release rate to High Street East is calculated to be 3.47 L/s with a weighted runoff coefficient of 0.84 (including a 100-year adjustment factor). More details about the total release rate to the existing 825 mm diameter sewer along High Street East are included in **Section 7.1**.

Refer to **Appendix D** for the calculated post-development catchment areas and associated weighted runoff coefficients.

7.0 Stormwater Management

7.1 Stormwater Quantity Control

Method of Analysis

The Modified Rational Method was used to calculate the runoff rates from all drainage catchments and to quantify the detention storage required for quantity control measures in keeping within the requirements of the City of Mississauga guidelines.

Allowable Release Rate

Using the City of Mississauga's current IDF parameters and referring to Table 1 of Section 8 – Storm Drainage Design Requirements of the City of Mississauga dated November 2020, the allowable release rate from the site to High Street East has been established as 21.96 L/s, with a weighted runoff coefficient of 0.78 (including 10-year adjustment factor). This rate is equal to the runoff generated from a 10-year storm event for the entire existing site area at a time of concentration 15 minutes. Refer to **Appendix D** for detailed stormwater management calculations.

Orifice & Post-Development Release Rates

Stormwater attenuation for the post-development site area, with a calculated runoff coefficient of 0.77 (including 100-year adjustment factor), will be by a 75 mm orifice tube at the downstream invert of the proposed control manhole. The orifice tube has been designed to control flows from a 100-year storm event to a release rate of 15.36 L/s (including a 100-year adjustment factor). Therefore, the total release under a 100-year storm event is determined to be 18.83 L/s, which is less than the 10-year allowable release rate. As a result, this conforms with the City of Mississauga stormwater guidelines.

Proposed Stormwater Management Tank

A stormwater management tank is proposed within the subject site. **Table 7** summarizes the design parameters of the stormwater management tank, detailed calculations can be found in **Appendix D** and on the **Servicing Plan – C102**.

Table 7: Stormwater Management Tank Design Parameters

Tank Elevations	Bottom = 75.20 m Outlet = 75.36 m Maximum High-Water Level (HWL) = 76.33 m Top = 76.43 m Minimum Freeboard = 0.10 m
Orifice Tube Details (CTRL MH)	Diameter = 75 mm Invert = 75.33 m
Tank Area	20.5 m ²
Tank Active Storage Volumes	Required: 20.0 m ³ Provided: 20.5 m ³ (to HWL)

7.2 Stormwater Quality Control

An enhanced level of stormwater quality treatment of 80% Total Suspended Solids (TSS) removal is to be provided based on 100% of the runoff leaving the subject site for all storm events that occur in an average year. An oil and grit separator unit is proposed upstream of the proposed stormwater management tank, which will be designed to provide greater or equal to 80% TSS removal. Specifications of the oil and grit separator unit will be provided during the detailed design stage.

7.3 Water Balance

Based on the City of Mississauga guidelines, runoff from the 5 mm rainfall event is to be retained on-site through infiltration, evapotranspiration, and/or water reuse measures. Water balance will be achieved through a combination of initial abstraction and infiltration below the outlet invert of the stormwater management tank. Based on a required average annual precipitation depth of 5 mm to be retained on-site, the required retention volume is calculated to be 5.1 m³.

Initial abstraction calculations have been completed based on the proposed conditions of the subject site. A 1.0 mm credit was used for impervious coverage, 5.0 mm credit for ground level landscaping, and 5.0 mm credit for rooftop landscaping. The site can effectively retain a volume of 1.8 m³ of rainfall through initial abstraction. The remaining 3.3 m³ will be retained below the outlet

invert of the proposed stormwater management tank, which will then infiltrate into the ground. Detailed water balance calculations can be referenced in **Appendix D**. Infiltration gallery calculations will be provided during the detailed design stage. Information regarding the subsoil conditions and probable effectiveness on the infiltration gallery design is discussed in the following paragraph.

As per the Geotechnical Investigation prepared by Toronto Inspection Ltd. dated June 4th, 2025, the boreholes revealed that the subsoil, below the topsoil and asphalt pavement, consisted of a layer of fill, overlaying a native sandy silt till deposit. Probable shale was encountered at the termination depths of the boreholes. However, the depth of the shale will not impede on the infiltration gallery design as it is found to be at a depth of roughly 3.5 m. The native sandy silt till is desirable to promote infiltration.

Additionally, the groundwater levels found on-site ranged between 3.51m and 5.03m from grade. Therefore, the infiltration gallery has been designed to be a minimum of 1.0m above the highest recorded seasonal groundwater level to avoid water table encroachment.

8.0 Conclusions & Recommendations

We recommend the approval of the Zoning By-Law Amendment application for the proposed development from a functional site servicing and stormwater management perspective.

Based on the information contained within this summary report, we offer the following conclusions:

1. Water servicing will be provided via one (1) connection to the existing 200 mm watermain along High Street East. It is determined that the existing watermain has sufficient capacity to service the proposed development's maximum day plus fire flow demand of 81.68 L/s. A private hydrant is proposed near the building entrance facing High Street East.
2. Sanitary servicing will be provided via one (1) connection to the existing 375 mm diameter sanitary sewer along High Street East. Based on post-development conditions, it was determined that sanitary demands would reach a total peak flow rate of 3.51 L/s.
3. Stormwater quantity control for the subject site will be provided via a stormwater management tank. Flows will be controlled by a 75 mm orifice tube downstream of the stormwater management tank.
4. Stormwater quality control for the subject site will be provided through a oil and grit separator unit, which will be sized to remove 80% of the TSS. The oil and grit separator is proposed to be located upstream of the stormwater management tank to promote clean water entering the stormwater management tank.
5. Water balance for the site will be achieved through a combination of initial abstraction and infiltration below the proposed stormwater management tank outlet.

Based on the conclusions and recommendations, we suggest the approval of the applications from the perspective of functional servicing and stormwater management.

Respectfully submitted,

C.F. CROZIER & ASSOCIATES INC.

JP Labonte

J.P. Labonte, EIT
Engineering Intern

C.F. CROZIER & ASSOCIATES INC.



Julie Scott, P.Eng.
Project Manager



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APPENDIX A

Background Information

JP Labonte

From: Tim Neeb <tim@mahoganymanagement.com>
Sent: May 26, 2025 1:25 PM
To: JP Labonte
Cc: Julie Scott
Subject: Re: CFC 2880-7436: 50 High Street East, Mississauga - Existing Building Unit Count Statistic Request

Follow Up Flag: Follow up
Flag Status: Flagged

current building has 11 one bedroom units.

planned building has 60 one bedroom, 35 two bedroom and 1 three bedroom total 96 units

On Mon, May 26, 2025 at 12:21 PM JP Labonte <jplabonte@cfcrozier.ca> wrote:

Thank you for providing the total unit count Tim.

We would also need the type of unit associated to that number (ie 1 bed, 2 bed, etc.)

Best,

JP Labonte

Engineering Intern, Land Development
Office: 905.876.7158
Collingwood | Milton | Toronto | Bradford | Guelph

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From: Tim Neeb <tim@mahoganymanagement.com>
Sent: May 26, 2025 12:02 PM
To: JP Labonte <jplabonte@cfcrozier.ca>; Christina Borowiec <christina@sajekiplanning.com>; Tony De Franco <tony@sajekiplanning.com>; Julie Scott <jscott@cfcrozier.ca>; Adrian Mauro <amauro@chamberlainipd.com>
Subject: Re: CFC 2880-7436: 50 High Street East, Mississauga - Existing Building Unit Count Statistic Request

existing building count is 11 units. new building should be 95 units.

Tim

On Mon, May 26, 2025 at 10:03 AM JP Labonte <jplabonte@cfcrozier.ca> wrote:

Hi Tim,

Hope you had a nice weekend.

I am requesting the existing building unit count for our existing sanitary and water demand calculations for the functional servicing report. The report must touch on the existing demands and how they compare to the proposed demands.

Let me know if you have any questions and/or concerns.

Thanks.

JP Labonte

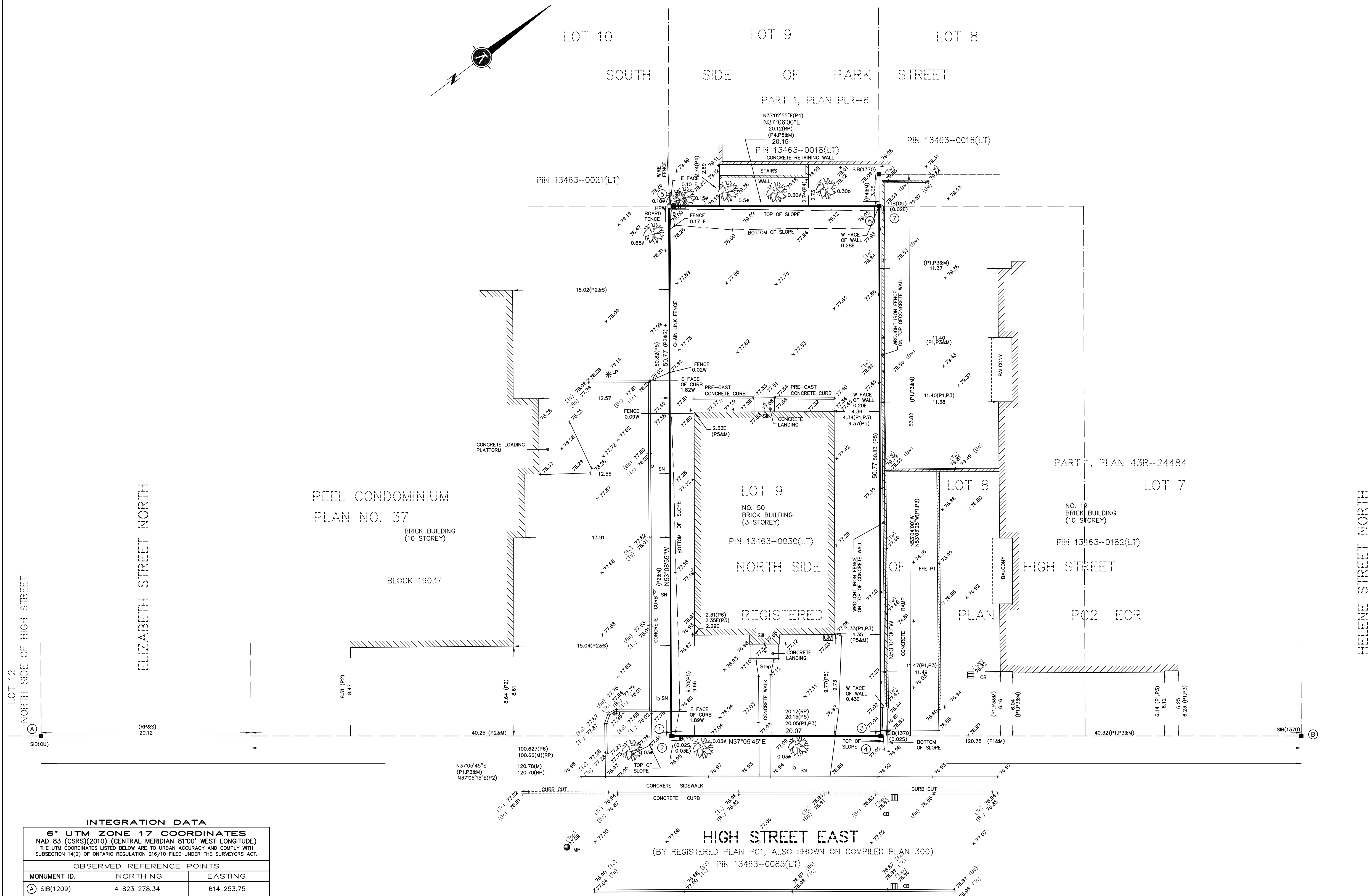
Engineering Intern, Land Development
Office: 905.876.7158

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PLAN OF SURVEY
SHOWING TOPOGRAPHICAL INFORMATION OF
LOT 9, NORTH SIDE OF HIGH
STREET
REGISTERED PLAN PC2
EAST OF THE CREDIT RIVER
CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL

SCALE 1:200
KRCMAR SURVEYORS LTD. 2025
METRIC: DISTANCES AND COORDINATES SHOWN HEREON ARE IN METRES
AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

BEARING
BEARINGS SHOWN HEREON ARE GRID DERIVED FROM GPS OBSERVATIONS OF
OBSERVED REFERENCE POINTS 'A' AND 'B' USING THE LEICA SMARTNET
RTK NETWORK AND ARE REFERRED TO THE 3° MTM COORDINATE SYSTEM,
ZONE 10, CENTRAL MERIDIAN 79°30' WEST LONGITUDE.
(3° MODIFIED TRANSVERSE MERCATOR PROJECTION, NAD 83 (CSRS)(2010)).
DISTANCES SHOWN HEREON ARE GROUND DISTANCES AND CAN BE
CONVERTED TO GRID DISTANCES BY MULTIPLYING BY A COMBINED SCALE
FACTOR OF 0.999727.

ELEVATION
ELEVATIONS SHOWN HEREON ARE MISSISSAUGA DATUM AND ARE
RELATED TO THE CITY OF MISSISSAUGA BENCHMARK No. 732
HAVING AN ELEVATION OF 78.128 METRES.
(VERTICAL DATUM: CGVD28.PRE78)

LEGEND
■ DENOTES SURVEY MONUMENT FOUND
□ DENOTES SURVEY MONUMENT PLANTED
SIB DENOTES STANDARD IRON BAR
SSIB DENOTES SHORT STANDARD IRON BAR
IB DENOTES IRON BAR
(M) DENOTES MEASURED
(S) DENOTES SET
(OU) DENOTES ORIGIN UNKNOWN
(RP) DENOTES REGISTERED PLAN 300E
(P1) DENOTES PLAN 43R-24484
(P2) DENOTES PEEL CONDOMINIUM PLAN No. 37
(P3) DENOTES PLAN BY VLADIMIR KRCMAR LIMITED, O.L.S. - JULY 20, 1999
(P4) DENOTES PLAN BY YATES & YATES LIMITED, O.L.S. - NOV. 26, 1984
(P5) DENOTES PLAN BY STARR & TARASICK, O.L.S. - DEC.14, 1982
(P6) DENOTES PLAN 43R-4455
(1370) DENOTES KRCMAR SURVEYORS LTD. O.L.S.
(YY) YATES & YATES LTD., O.L.S.
(Tc) DENOTES TOP OF CURB
(Bc) DENOTES BOTTOM OF CURB
(Tw) DENOTES TOP OF WALL
(Bw) DENOTES BOTTOM OF WALL
SILL DENOTES DOOR SILL
723.45 DENOTES EXISTING GRADE ELEVATION
CB DENOTES CATCH BASIN
723.018 DENOTES DECIDUOUS TREE WITH TRUNK DIAMETER
> DENOTES DOWN GUY ANCHOR
HPW DENOTES HYDRO POLE - WOODEN
LP DENOTES LAMP POST (PRIVATE)
MH DENOTES MANHOLE
b SN DENOTES SIGN

SURVEY REPORT
1. THE RE-ESTABLISHMENT OF THE SUBJECT PROPERTY BOUNDARIES IS
BASED ON INFORMATION CONTAINED IN THE RELEVANT TITLE DOCUMENTS,
REGISTERED PLANS AND ON THE EVIDENCE OF PRIOR SURVEYS FOUND
DURING THE COURSE OF PREPARING THE SUBJECT SURVEY.
2. THE TYPE AND LOCATION OF THE EXISTING BUILDINGS AND OTHER
IMPROVEMENTS, FENCES ETC., ON OR NEAR THE SUBJECT PROPERTY ARE
AS SHOWN ON THE SURVEY PLAN.
3. COMPLIANCE WITH MUNICIPAL ZONING REQUIREMENTS IS NOT CERTIFIED BY
THIS REPORT.
4. SUBJECT LANDS COMPRISE ALL OF PIN 13463-0030(LT).

TOTAL SITE AREA = 1021.0 m²

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH
THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE
UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 24th DAY OF APRIL, 2025

DATE April 24, 2025
STUART M. MOORE
ONTARIO LAND SURVEYOR

THIS PLAN OF SURVEY RELATES TO AOLS PLAN
SUBMISSION FORM NUMBER V-102836

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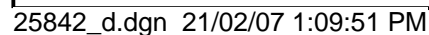
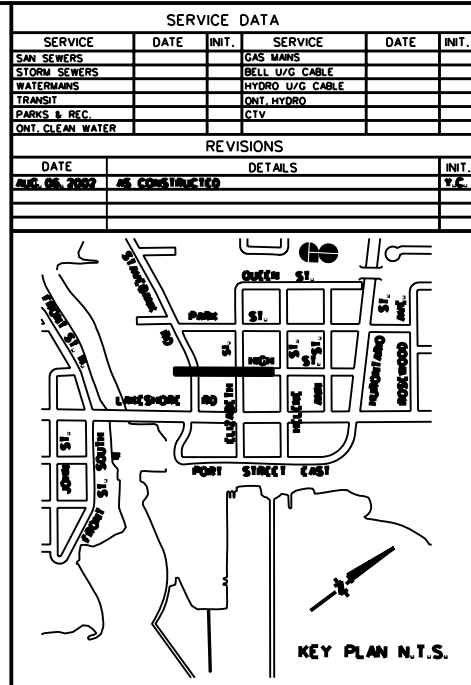
MUNICIPAL ADDRESS: No. 50 HIGH STREET, MISSISSAUGA
FIELD: L.D. DRAWN: F.P.B. CHECKED: S.M.M. JOB NO: 98-072
DWG NAME: 98-0728101 PLOT INFO: 16/April/2025 WORK ORDER NO: 41528
1137 Centre Street Thornhill ON L4J 3M6 905.738.0053 F.905.738.9221 www.krcmar.ca
PLAN AVAILABLE AT www.ProtectYourBoundaries.ca

KRCMAR

INTEGRATION DATA		
6° UTM ZONE 17 COORDINATES		
NAD 83 (CSRS)(2010) (CENTRAL MERIDIAN 81°00' WEST LONGITUDE)		
THE UTM COORDINATES LISTED BELOW ARE TO URBAN ACCURACY AND COMPLY WITH		
SUBSECTION 14(2) OF ONTARIO REGULATION 216/10 FILED UNDER THE SURVEYORS ACT.		
OBSERVED REFERENCE POINTS		
MONUMENT ID.	NORTHING	EASTING
A SIB(1209)	4 823 278.34	614 253.75
B SIB(1209)	4 823 374.64	614 326.58
REFERENCE POINTS		
POINT	NORTHING	EASTING
1 SW CORNER OF PROPERTY	4 823 326.51	614 290.18
2 IB(RP)	4 823 326.50	614 290.20
3 SE CORNER OF PROPERTY	4 823 342.49	614 302.27
4 SIB(1137)	4 823 342.48	614 302.28
5 NW CORNER OF PROPERTY	4 823 357.01	614 249.61
6 OF PROPERTY	4 823 372.99	614 261.70
7 IB(OU)	4 823 373.01	614 261.71

COORDINATE VALUES SHOWN ARE FOR GEOGRAPHIC INFORMATION SYSTEM INTEGRATION ONLY.
COORDINATES CANNOT, IN THEMSELVES, BE USED TO
RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

APPLY BEARING ROTATION FOR NAD83 CSRS 2010		
PLAN	ORIGINAL BEARING REFERENCE	ROTATION ANGLE
P1,P2,P3,P4	ASTRONOMIC	-00°59'05"



SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS	MAY 1996	EWK	GAS MAINS	JUNE 1996	A.S.
STORM SEWERS			BELL U/G CABLE	JUNE 1996	A.S.
WATERMANS	MAY 1996	EWK	HYDRO U/G CABLE		
TRANSIT			ONT. HYDRO		A.S.
PARKS & REC.			CTV		A.S.
ONT. CLEAN WATER					
REVISIONS					
DATE	DETAILS				INIT.
JULY 98	AS CONSTRUCTED				EWK

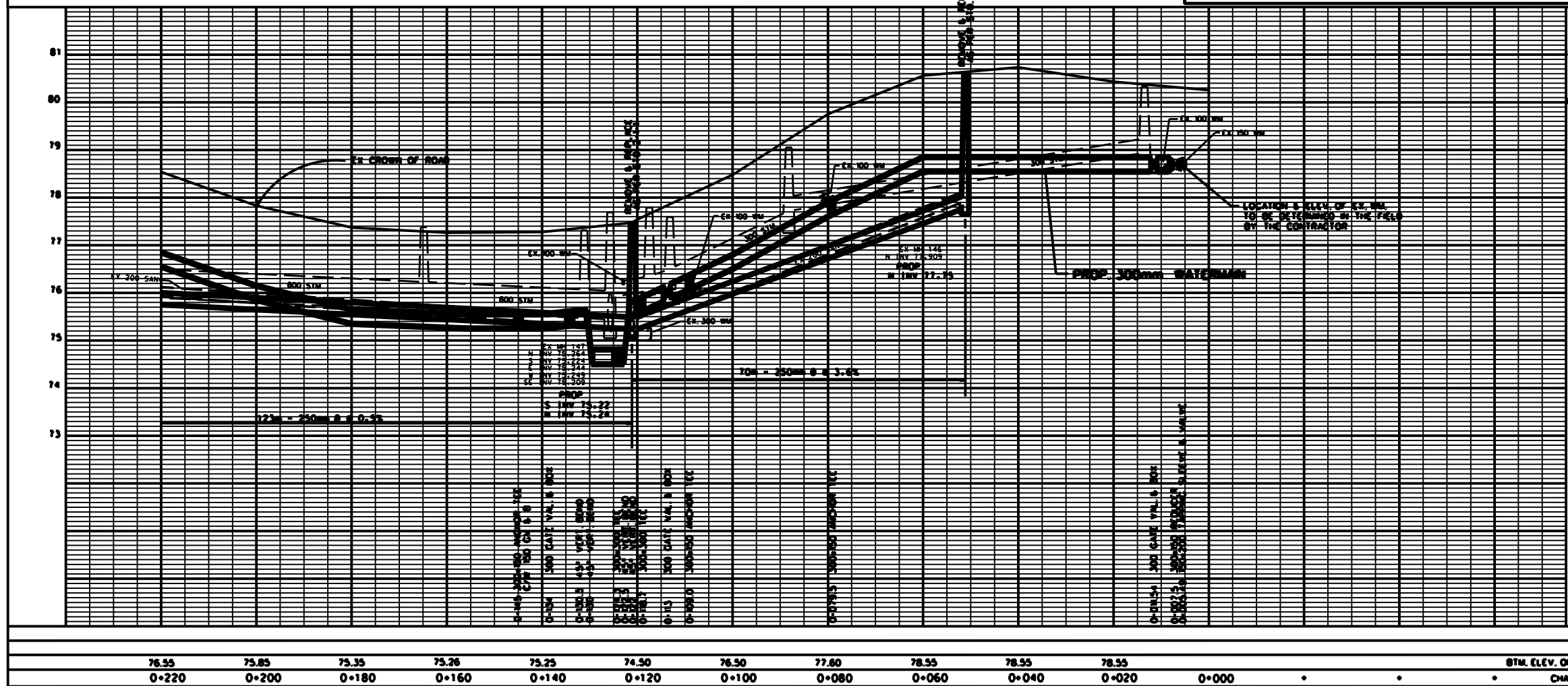
GENERAL NOTES:

- ALL COPPER (LESS THAN 20mm), GALVANIZED & LEAD WATER SERVICES ARE TO BE REPLACED WITH 20mm TYPE 'K' COPPER FROM THE NEW WM. TO THE STREET LINE COMPLETE WITH A NEW SERVICE BOX AT STREET LINE. ALL W/S'S MUST HAVE A MIN. OF 1.7m COVER IF W/S CONFLICTS WITH SEWERS AND/OR EX. WM. W/S HAS TO BE INSTALLED UNDER SEWER WITH A MIN. OF 300mm CLEARANCE. REMOVE & DISPOSE OF EXISTING WATER SERVICE BOXES.
- PLUG THE ENDS OF THE ABANDONED WM. WITH CONCRETE.
- 50mm TEMP. BLOW-OFF AND/OR RISER PIPE FOR SWABBING OF THE WM. IS/ARE TO BE LOCATED IN THE BLVD.
- NEW HYDRANT OFFSET AT 3.5m OR AS SHOWN ON PLANS.
- INSTALL TEMP. PLUG & B.O. AT END OF EACH PIPE FOR TEST.
- INSTALL W/S UNDER PAVEMENT, TREES AND/OR SHRUBS BY BORING.
- REMOVE AND DISPOSE OF EX. MANHOLES AND REINSTALL NEW 1200mm DIA. PRECAST SANITARY MANHOLE AS PER REGION STD. DWG. 2-1-1, 2-1-4 AND 2-2-2.
- ALL SANITARY SEWER LATERALS ARE TO BE REPLACED FROM MAIN TO STREET LINE UNLESS DIRECTED OTHERWISE BY THE PROJECT ENGINEER.
- THE EXACT LOCATION AND ELEVATION OF EX. WATERMAIN HAS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR.

LEGEND

- EX. 25mm & LARGER COPPER W/S TO BE CUT AND TRANSFERRED OR EXTENDED TO THE NEW WM.
- REPLACE EX. W/S WITH 25mm COPPER
- EX. HYD. V. & B. TO BE REMOVED AND HYD. TO BE RETURNED TO REGION YARD AT 3515 WOLFEDALE RD. VALVES TO BE DISPOSED OF OFF SITE.
- REPLACE EX. SANITARY LATERALS.

FOR BEDDING, BACKFILL AND REINSTATEMENT DETAIL SEE DWG. No. 22448-D



- General Notes
- ALL DRIVEWAYS ASPHALT UNLESS OTHERWISE NOTED.
 - ALL SERVICE LOCATIONS ARE APPROXIMATE AND MUST BE LOCATED ACCURATELY IN THE FIELD
 - DENOTES BUILDING - NOT LOCATED
 - DENOTES BUILDING LOCATED
 - TYPE 'B' BEDDING UNLESS OTHERWISE NOTED (SAN)

B.M. NO. ELEV.

THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES PRIOR TO AND DURING CONSTRUCTION. LOCATION OF EXISTING UTILITIES APPROXIMATE ONLY. TO BE VERIFIED IN FIELD BY CONTRACTOR.

DESIGNED BY: CHKD

APPROVED BY:

NOTICE TO CONTRACTOR

48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

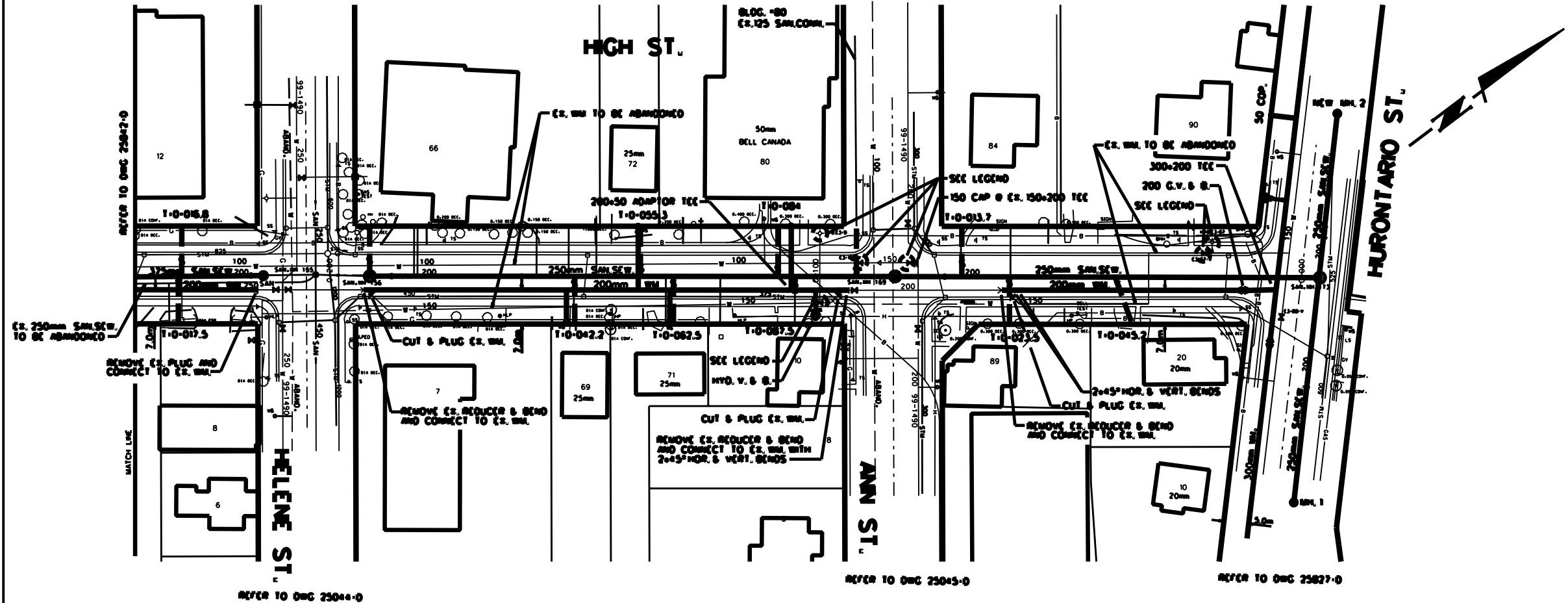
THE REGIONAL MUNICIPALITY OF PEEL
CITY OF MISSISSAUGA WORKS DEPT.
CITY OF BRAMPTON WORKS DEPT.
TOWN OF CALEDON WORKS DEPT.
BELL TELEPHONE COMPANY
CONSUMERS GAS COMPANY
MINISTRY OF TRANSPORTATION
ONTARIO CLEAN WATER AGENCY
HYDRO ELECTRIC POWER COMM. OF ONTARIO
HYDRO ELECTRIC COMM. CITY OF MISSISSAUGA
HYDRO ELECTRIC COMM. CITY OF BRAMPTON
CABLE TELEVISION



Region of Peel
Public Works

ELIZABETH STREET
PROP. 300mm WATERMAIN REPLACEMENT
PROP. 250mm SANITARY REPLACEMENT
Sta. 0+000 To Sta. 0+220

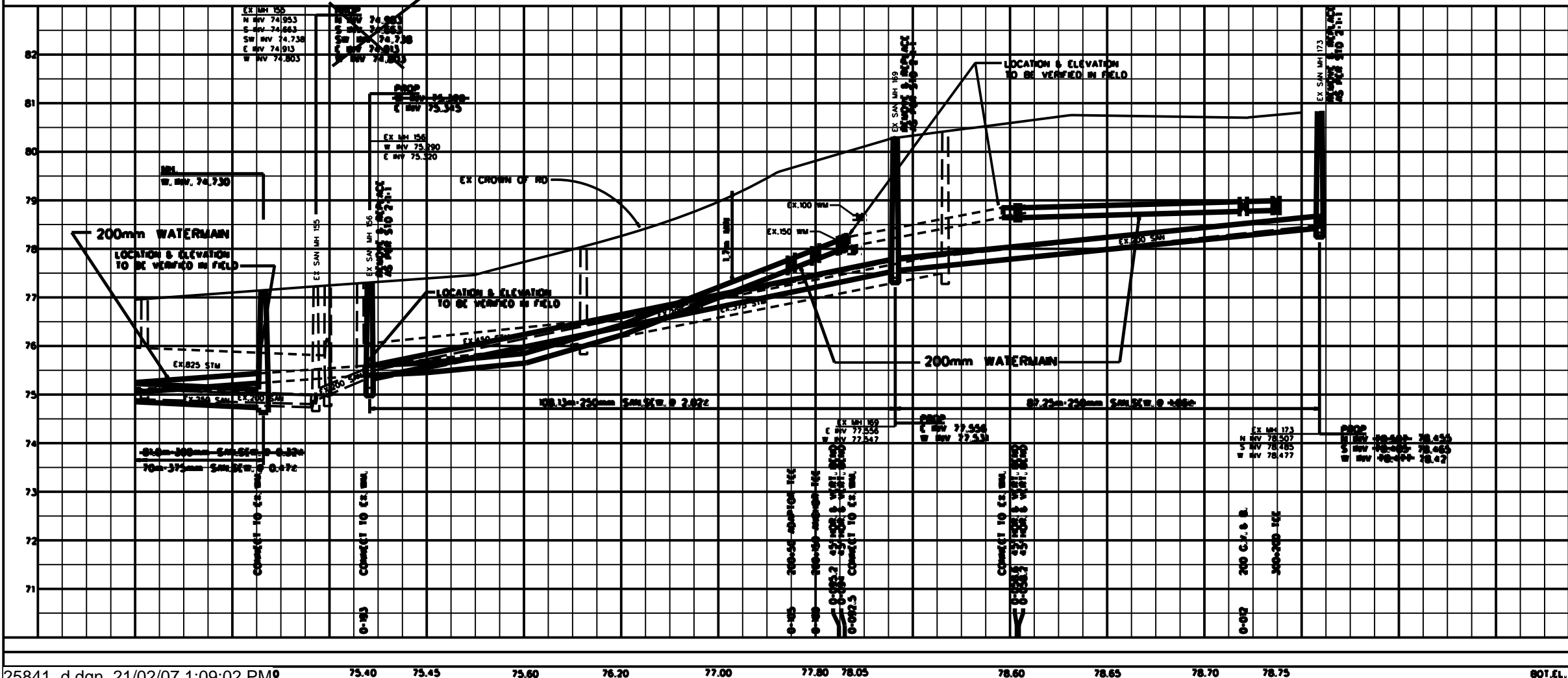
LOTS	AREA	2-8	PROJECT NO.	97-1440
CHECKED BY	DRAWN BY	EWK/MS	PLAN NO.	22447-D
DATE	MAY 96	SHEET	1 OF 3	



SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATERMANS			HYDRO U/G CABLE		
TRANSIT			ONT. HYDRO		
PARKS & REC.			CTV		
ONT. CLEAN WATER					

REVISIONS		
DATE	DETAILS	INIT.
AUG. 08, 2007	AS CONSTRUCTED	V.C.

FOR NOTES, LEGEND DETAILS SEE DWG. 25840-0



General Notes

- ALL DRIVEWAYS ASPHALT UNLESS OTHERWISE NOTED.
- ALL SERVICE LOCATIONS ARE APPROXIMATE AND MUST BE LOCATED ACCURATELY IN THE FIELD
- DENOTES BUILDING - NOT LOCATED
- DENOTES BUILDING LOCATED
- TYPE "B" BEDDING UNLESS OTHERWISE NOTED (SAN)

B.M. NO. ELEV.

THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES PRIOR TO AND DURING CONSTRUCTION LOCATION OF EXISTING UTILITIES APPROXIMATE ONLY. TO BE VERIFIED IN FIELD BY CONTRACTOR.

DESIGNED BY	APPROVED BY
CHWD	

NOTICE TO CONTRACTOR

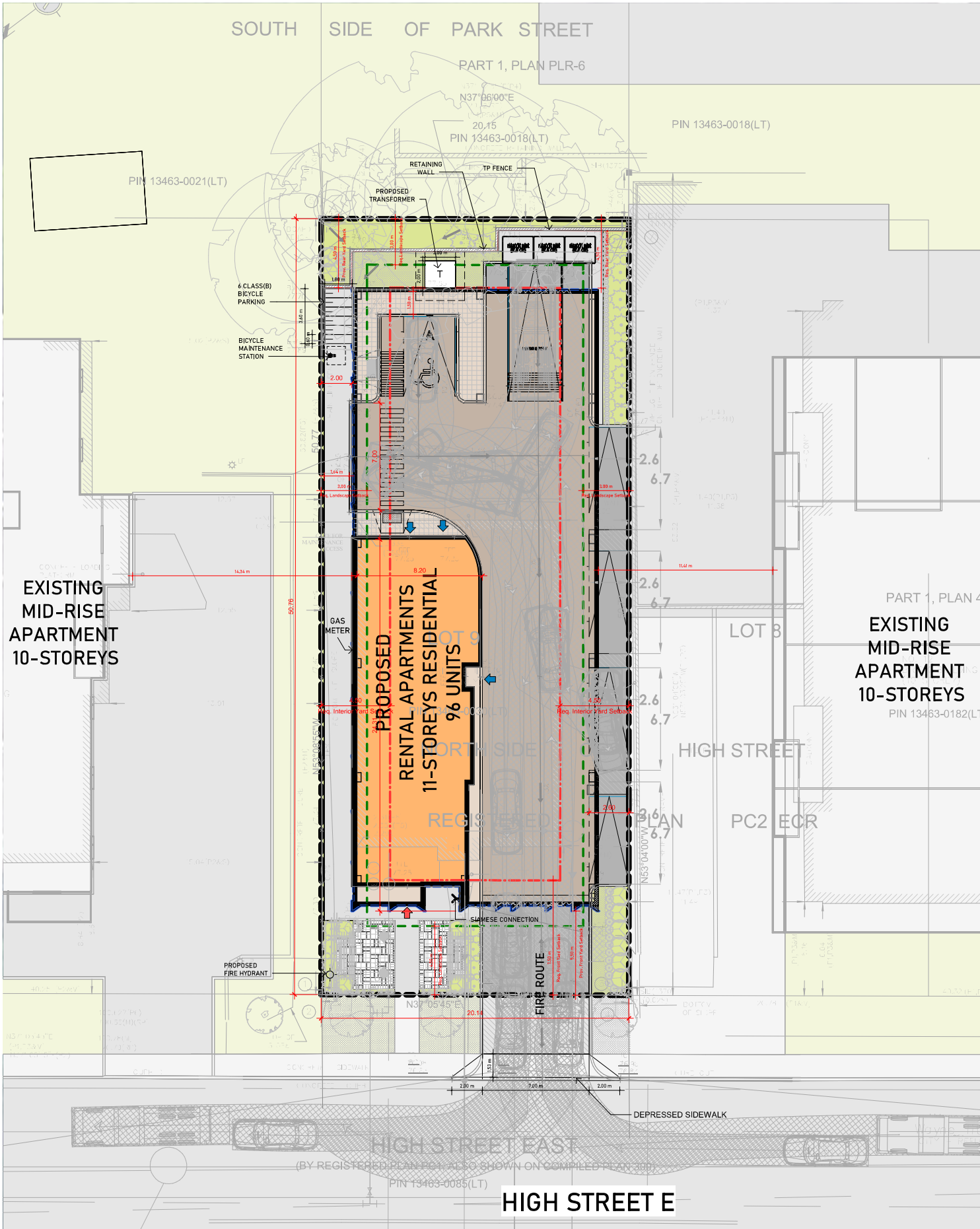
48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

THE REGIONAL MUNICIPALITY OF PEEL
CITY OF MISSISSAUGA WORKS DEPT.
CITY OF BRAMPTON WORKS DEPT.
TOWN OF CALEDON WORKS DEPT.
BELL TELEPHONE COMPANY
CONSUMERS GAS COMPANY
MINISTRY OF TRANSPORTATION
ONTARIO CLEAN WATER AGENCY
HYDRO ELECTRIC POWER COMM. OF ONTARIO
HYDRO ELECTRIC COMM. CITY OF MISSISSAUGA
HYDRO ELECTRIC COMM. CITY OF BRAMPTON
CABLE TELEVISION

Region of Peel
Public Works

HIGH ST.
(FROM STAVEBANK RD TO HURONTARIO ST.)
200mm WATERMAIN
375 & 250 SAN. SEWER REPLACEMENT
Sta. 0+000 To Sta. 0+240

LOTS	AREA	Z-8	PROJECT NO.
CHECKED BY	DRAWN BY	Ed K.	00-2220
			00-1310



1 SITE PLAN
A.001 1 : 150

CAR PARKING

DIMENSIONS:

STANDARD (90°)	2,60 x 5,20 m
PARALLEL	2,60 x 6,7 m
BARRIER FREE TYPE (A)	3,40 x 5,20 m
BARRIER FREE TYPE (B)	2,40 x 5,20 m
WIDTH OF DRIVEWAYS:	
ONE-WAY AISLE	5,50 m
TWO-WAY AISLE	7,00 m

REQUIRED PARKING SPACES:

Refer to the WSP transportation study for parking rationale.

PROPOSED PARKING SPACES:

PROVIDED PARKING SPACES		
TYPE	DESCRIPTION	COUNT
ACCESSIBLE PARKING	5,20m X 3,40m	1
LOADING SPACE	9,00m x 3,50 m	1
VISITOR PARKING	6,7m X 2,6m	4
Grand total		6

LOADING SPACES:

One loading space per apartment building containing a minimum of 30 dwelling units

Required loading spaces shall have an unobstructed rectangular area with a minimum width of 3,5 m and a minimum length of 9,0 m.

REQUIRED LOADING SPACES:

BUILDING CONTAINS 96 DWELLING UNITS

REQUIRED LOADING SPACES = 1

SITE STATISTICS

SITE STATISTICS OVERALL				
DESCRIPTION	AREA (m²)	AREA (ft²)	AREA (HA)	PERCENTAGE (%)
OVERALL SITE	1022,21 m²	11003 ft²	0,102 hectare	100,0%

SITE STATISTICS			
DESCRIPTION	AREA (SM)	AREA (SF)	PERCENTAGE
BUILDINGS			
PROPOSED BUILDING	184,05 m²	1,981 ft²	18%
	184,05 m²	1,981 ft²	18%
HARD LANDSCAPE			
ASPHALT	503,47 m²	5,419 ft²	49,25%
CURB	15,53 m²	167 ft²	1,52%
PAVER	25,89 m²	279 ft²	2,53%
SIDEWALK	175,46 m²	1,889 ft²	17,16%
	720,35 m²	7,754 ft²	70,47%
SOFT LANDSCAPE			
LANDSCAPE	117,81 m²	1,268 ft²	11,53%
	117,81 m²	1,268 ft²	11,53%
	1,022,21 m²	11,003 ft²	100%

GFA & FSI

GFA / FSI			
Level	Area (m²)	Area (ft²)	FSI
BASEMENT	0,00 m²	0,0 ft²	0
LVL 1	0,00 m²	0,0 ft²	0
LVL 2	503,62 m²	5421,0 ft²	0,49268
LVL 3-9	554,20 m²	5965,3 ft²	0,542153
LVL 4	596,67 m²	6422,5 ft²	0,583708
LVL 5	597,05 m²	6426,6 ft²	0,584075
LVL 6	596,67 m²	6422,5 ft²	0,583704
LVL 7	596,67 m²	6422,5 ft²	0,583704
LVL 8	596,58 m²	6421,6 ft²	0,58362
LVL 9	554,20 m²	5965,4 ft²	0,54216
LVL 10	462,63 m²	4979,7 ft²	0,452577
LVL 11	554,58 m²	5969,5 ft²	0,542529
T/O ROOF DECK	0,00 m²	0,0 ft²	0
Grand total	5612,89 m²	60416,6 ft²	5,49091

BICYCLE PARKING

0.6 SPACES PER UNIT FOR CLASS (A)

PROVIDED BICYCLE PARKING	
DESCRIPTION	COUNT

BIKE PARKING - CLASS (A)	58
BIKE PARKING - CLASS (B)	6
Grand total	64

REQUIRED LOADING SPACES:

CLASS (A) = 0.6 * 96 UNITS = 58 SPACES

CLASS (B) = 0.05 * 96 UNITS = 5 SPACES

GROSS FLOOR AREA/APARTMENT ZONE

THE SUM OF THE AREAS OF EACH STOREY OF A BUILDING ABOVE OR BELOW ESTABLISHED GRADE, MEASURED FROM THE EXTERIOR OF OUTSIDE WALLS OF THE BUILDING INCLUDING FLOOR AREA OCCUPIED BY INTERIOR WALLS BUT EXCLUDING ANY PART OF THE BUILDING USED FOR MECHANICAL FLOOR AREA, STAIRWELLS, ELEVATORS, MOTOR VEHICLE PARKING, BICYCLE PARKING, STORAGE LOCKERS, BELOW-GRADE STORAGE, ANY ENCLOSED AREA USED FOR THE COLLECTION OR STORAGE OF DISPOSABLE OR RECYCLABLE WASTE GENERATED WITHIN THE BUILDING, COMMON FACILITIES FOR THE USE OF THE RESIDENTS OF THE BUILDING, A DAY CARE AND AMENITY AREA. (0174-2017)

ZONING INFO

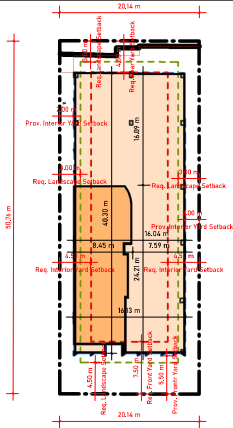
CITY : City of Mississauga
PROPERTY ADDRESS: 50 High Street E, Mississauga
LOT AREA : 1,022.21 m²
ZONE CODE : RA1-6
ZONE DESCRIPTION : Apartment, Long-Term Care, Retirement Buildings
ZONE CATEGORY : Residential
BY-LAW : 0225-2007
DESIGNATION: Residential High Density
Z-Area: Z08

	REQUIRED	PROPOSED
LOT AREA (MIN.)	-	1,022,21 m²
LOT FRONTAGE (MIN.)	30,00 m	20,14 m
LOT COVERAGE (MAX)	-	18,00 %
** BUILDING HEIGHT		
• MINIMUM	-	40,80m - 11 Storeys
• MAXIMUM	13,00 m - 4 Storeys	
** LANDSCAPE BUFFER		
LANDSCAPING BUFFER ABUTING A STREET	4,50 m	4,80 m
LANDSCAPING BUFFER ABUTING LOT LINE	3,00 m	0,00 m
MINIMUM LANDSCAPED AREA	40% OF LOT AREA	32,74%
** REQUIRED YARDS (MIN.)		
• FRONT YARD SETBACK (MIN.)	7,50 m	5,50 m
• REAR YARD SETBACK (MIN.)	4,50 m	4,50 m
• INTERIOR SIDE YARD SETBACK (MIN.)	4,50 m	2,00 m
• EXTERIOR SIDE YARD SETBACK (MIN.)	7,50 m	
• EXTERIOR SIDE YARD SETBACK(MAX.)	-	
** AMENITY SPACES		
• TOTAL AMENITY SPACES AREA	The greater of 5,6m² per dwelling unit or 10% of the site area = 476 m²	580,86 m²
• AMENITY OUTDOOR AREA	Min. 55 m²	73,9 m²

KEY PLAN



SETBACK PLAN



SETBACK PLAN

1 : 500

KEY LEGEND

SITE PLAN LEGEND	
▲ ↑	ENTRANCE / EXIT
---	PROPERTY LINE
---	BUILDING SETBACK LINE
---	LANDSCAPE SETBACK LINE
---	EASEMENT AREA
■	PROPOSED BUILDING
■	EXISTING BUILDING
■	ASPHALT
■	LANDSCAPE / SOD AREA
■	CONCRETE SIDEWALK c/w SIDEWALK
■	PEDESTRIAN CROSSWALK
MH □	MANHOLE
CB ○	CATCHBASIN
♿	DESIGNATED BARRIER-FREE PARKING SPACE
6m	6m WIDE FIRE ROUTE WITH HEAVY DUTY ASPHALT
+	SIAMESE CONNECTION
⚡	PROPOSED FIRE HYDRANT
⚡	LIGHT STANDARD
T	PROPOSED PAD MOUNTED TRANSFORMER (REFER TO ELECTRICAL DRAWINGS)
3	DEPRESSED CURB
3	PARKING COUNT

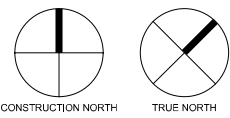
NO.	ISSUED	DATE
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DO NOT SCALE DRAWINGS. USE ONLY DIMENSIONS
MARKED "REQUIRED FOR CONSTRUCTION". VERIFY
CONFIGURATIONS AND DIMENSIONS ON SITE BEFORE
BEGINNING WORK. NOTIFY ARCHITECT IMMEDIATELY
OF ANY ERRORS, OMISSIONS OR DISCREPANCIES.

CHAMBERLAIN ARCHITECT SERVICES LIMITED AND
CHAMBERLAIN CONSTRUCTION SERVICES LIMITED
HAVE SHARED OWNERSHIP.

CHAMBERLAIN ARCHITECT SERVICES LIMITED
HAS COPYRIGHT. CONSTRUCTING A SUBSTANTIALLY
SIMILAR BUILDING WITHOUT PERMISSION MAY
INFRINGE THE COPYRIGHT OWNERS RIGHTS.
MAKING MINOR CHANGES TO PLANS DOES NOT
NECESSARILY AVOID COPYRIGHT INFRINGEMENT.
INNOCENT INFRINGEMENT IS NOT A DEFENSE TO
COPYRIGHT INFRINGEMENT. ©

SEAL



50 High Street
Affordable

50 High Street E,
Mississauga

SHEET NAME

SITE PLAN

START DATE April 2025

DRAWN BY MK

CHECKED BY SM

SCALE As indicated

PROJECT NO. 125021

DRAWING

A.001

ZONE: RA1-6

DEFINITIONS:

GROSS FLOOR AREA (APARTMENT ZONE)
THE SUM OF THE AREAS OF EACH STOREY OF A BUILDING ABOVE OR BELOW ESTABLISHED GRADE, MEASURED FROM THE EXTERIOR OF OUTSIDE WALLS OF THE BUILDING INCLUDING FLOOR AREA OCCUPIED BY INTERIOR WALLS BUT EXCLUDING ANY PART OF THE BUILDING USED FOR MECHANICAL FLOOR AREA, STAIRWELLS, ELEVATORS, MOTOR VEHICLE PARKING, BICYCLE PARKING, STORAGE LOCKERS, BELOW-GRADE STORAGE, ANY ENCLOSED AREA USED FOR THE COLLECTION OR STORAGE OF DISPOSABLE OR RECYCLABLE WASTE GENERATED WITHIN THE BUILDING, COMMON FACILITIES FOR THE USE OF THE RESIDENTS OF THE BUILDING, A DAY CARE AND AMENITY AREA. (0174-2017)

GROSS FLOOR AREA SHALL NOT INCLUDE FLOOR SPACE DEVOTED TO:

- MECHANICAL FLOOR AREA
- STAIRWELLS
- ELEVATORS
- MOTOR VEHICLE PARKING
- BICYCLE PARKING
- STORAGE
- LOCKERS
- BELOW-GRADE STORAGE
- ENCLOSED AREAS USED FOR : COLLECTION, STORAGE
- COMMON FACILITIES USED BY RESIDENTS, A DAY CARE, AMENITY AREA

LOADING SPACES:

ONE LOADING SPACE PER APARTMENT BUILDING CONTAINING A MINIMUM OF 30 DWELLING UNITS.

BICYCLE PARKING:

0.6 SPACES PER UNIT FOR CLASS (A)

THE GREATER OF 0.05 SPACES PER UNIT OR 6.0 SPACES FOR CLASS (B)

PARKING SIZE REGULATIONS:

VEHICLE PARKING:

EACH PARALLEL PARKING SPACE SHALL HAVE A MINIMUM WIDTH OF 2.60m AND A MINIMUM AREA OF 17.42 m², (2.60m x 6.70m)

ACCESSIBLE

EACH 90 DEGREES ACCESSIBLE PARKING SHALL BE 5.20m X 3.40m WITH AN ADDITION OF A DELINEATED "ACCESSIBLE PARKING PATHWAY" WITH A MINIMUM WIDTH OF 1.50m

BICYCLE PARKING:

0.6m x 1.8m

SITE REGULATIONS

REGULATION	MINIMUM	MAXIMUM	PROVIDED
------------	---------	---------	----------

FRONT YARD SETBACK	7.5m	-	5.5m
EXTERIOR SIDE YARD SETBACK	7.5m	-	-
REAR YARD SETBACK	4.5m	-	4.5m
INTERIOR SIDE YARD SETBACK	4.5m	-	2.0m
BUILDING COVERAGE	-	-	18%
LANDSCAPE SETBACK ABUTTING A STREET	4.5m	-	4.8m
LANDSCAPE COVERAGE	40%	-	32.74%
BUILDING HEIGHT	13.00m - 4 Storeys	-	40.8m-11 Storeys

SITE STATISTICS

DESCRIPTION	AREA (SM)	AREA (SF)	PERCENTAGE
-------------	-----------	-----------	------------

BUILDINGS			
PROPOSED BUILDING	184.05 m ²	1,981 ft ²	18%
	184.05 m ²	1,981 ft ²	18%

HARD LANDSCAPE			
ASPHALT	503.47 m ²	5,419 ft ²	49.25%
CURB	15.53 m ²	167 ft ²	1.52%
SIDEWALK	220.75 m ²	2,376 ft ²	21.6%
	739.75 m ²	7,963 ft ²	72.37%

SOFT LANDSCAPE			
LANDSCAPE	98.41 m ²	1,059 ft ²	9.63%
	98.41 m ²	1,059 ft ²	9.63%
	1,022.21 m ²	11,003 ft ²	100%

OVERALL SITE	1,022.21 m ²	11,003 ft ²	100%
--------------	-------------------------	------------------------	------

PARKING SCHEDULE - ABOVE GROUND

TYPE	SIZE	COUNT
T/O GROUND FLOOR		
ACCESSIBLE PARKING	5.20m X 3.40m	1
VISITOR PARKING	6.7m X 2.6m	4
		5
TOTAL ABOVE GROUND		5

LEVEL	GCA - GROSS CONSTRUCTABLE AREA		COMMON AREAS (LOBBY, VEST., CORR.)		ELEVATOR SHAFT		SERVICES (CHUTE, MECH&ELEC)		EGRESS STAIRS		INDOOR AMENITY		OUTDOOR AMENITY IN-BUILD (INCL. BAL.)		GFA - GROSS FLOOR AREA	
	Area	AREA m2	Area	AREA m2	Area	AREA m2	Area	AREA m2	Area	AREA m2	Area	AREA m2	Area	AREA m2	Area	AREA m2

BASEMENT	175 m ²	175.23 m ²	413 ft ²	38.35 m ²	0 ft ²	0.00 m ²	1,473 ft ²	136.89 m ²	230 ft ²	21.41 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²
LVL 1	164 m ²	164.27 m ²	1,523 ft ²	141.46 m ²	0 ft ²	0.00 m ²	90 ft ²	8.37 m ²	276 ft ²	25.67 m ²	0 ft ²	0.00 m ²	796 ft ²	73.93 m ²	0 ft ²	0.00 m ²
LVL 2	573 m ²	573.43 m ²	671 ft ²	62.34 m ²	0 ft ²	0.00 m ²	80 ft ²	7.46 m ²	215 ft ²	19.96 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²	5,421 ft ²	503.62 m ²
LVL 3-9	624 m ²	624.00 m ²	671 ft ²	62.34 m ²	0 ft ²	0.00 m ²	80 ft ²	7.46 m ²	215 ft ²	19.96 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²	5,965 ft ²	554.20 m ²
LVL 4	638 m ²	637.95 m ²	671 ft ²	62.34 m ²	149 ft ²	13.85 m ²	80 ft ²	7.46 m ²	215 ft ²	19.96 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²	6,423 ft ²	596.67 m ²
LVL 5	638 m ²	638.32 m ²	671 ft ²	62.34 m ²	149 ft ²	13.85 m ²	80 ft ²	7.46 m ²	215 ft ²	19.96 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²	6,427 ft ²	597.05 m ²
LVL 6	638 m ²	637.95 m ²	671 ft ²	62.34 m ²	149 ft ²	13.85 m ²	80 ft ²	7.46 m ²	215 ft ²	19.96 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²	6,423 ft ²	596.67 m ²
LVL 7	638 m ²	637.95 m ²	671 ft ²	62.34 m ²	149 ft ²	13.85 m ²	80 ft ²	7.46 m ²	215 ft ²	19.96 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²	6,423 ft ²	596.67 m ²
LVL 8	638 m ²	637.86 m ²	671 ft ²	62.34 m ²	149 ft ²	13.85 m ²	80 ft ²	7.46 m ²	215 ft ²	19.96 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²	6,422 ft ²	596.58 m ²
LVL 9	624 m ²	624.01 m ²	671 ft ²	62.34 m ²	0 ft ²	0.00 m ²	80 ft ²	7.46 m ²	215 ft ²	19.96 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²	5,965 ft ²	554.20 m ²
LVL 10	591 m ²	591.12 m ²	671 ft ²	62.34 m ²	149 ft ²	13.85 m ²	80 ft ²	7.46 m ²	215 ft ²	19.96 m ²	939 ft ²	87.22 m ²	486 ft ²	45.15 m ²	4,980 ft ²	462.63 m ²
LVL 11	596 m ²	595.86 m ²	671 ft ²	62.34 m ²	149 ft ²	13.85 m ²	80 ft ²	7.46 m ²	215 ft ²	19.96 m ²	0 ft ²	0.00 m ²	0 ft ²	0.00 m ²	5,969 ft ²	554.58 m ²
T/O ROOF DECK	536 m ²	536.32 m ²	907 ft ²	84.27 m ²	0 ft ²	0.00 m ²	834 ft ²	77.49 m ²	228 ft ²	21.16 m ²	0 ft ²	0.00 m ²	4,032 ft ²	374.56 m ²	0 ft ²	0.00 m ²
: 342	7,074 m ²	7074.26 m ²	9,553 ft ²	887.49 m ²	1,044 ft ²	96.96 m ²	3,201 ft ²	297.38 m ²	2,883 ft ²	267.85 m ²	939 ft ²	87.22 m ²	5,313 ft ²	493.64 m ²	60,417 ft ²	5612.89 m ²
Grand total: 342	7,074 m ²	7074.26 m ²	9,553 ft ²	887.49 m ²	1,044 ft ²	96.96 m ²	3,201 ft ²	297.38 m ²	2,883 ft ²	267.85 m ²	939 ft ²	87.22 m ²	5,313 ft ²	493.64 m ²	60,417 ft ²	5612.89 m ²

UNIT MIX - PER FLOOR			
NAME	AVERAGE AREA	COUNT	% BY COUNT

LVL 2			
1-BR	46 m ² ... 62 m ²	6	6%
2-BR	66 m ² ... 71 m ²	3	3%
LVL 3-9			
1-BR	46 m ² ... 48 m ²	6	6%
2-BR	65 m ² ... 70 m ²	4	4%
LVL 4			
1-BR	46 m ² ... 48 m ²	6	6%
2-BR	65 m ² ... 70 m ²	4	4%
LVL 5			
1-BR	46 m ² ... 48 m ²	6	6%
2-BR	65 m ² ... 71 m ²	4	4%
LVL 6			
1-BR	46 m ² ... 48 m ²	6	6%
2-BR	65 m ² ... 70 m ²	4	4%
LVL 7			
1-BR	46 m ² ... 48 m ²	6	6%
2-BR	65 m ² ... 70 m ²	4	4%
LVL 8			
1-BR	46 m ² ... 48 m ²	6	6%
2-BR	65 m ² ... 70 m ²	4	4%
LVL 9			
1-BR	46 m ² ... 48 m ²	6	6%
2-BR	65 m ² ... 70 m ²	4	4%
LVL 10			
1-BR	46 m ² ... 49 m ²	6	6%
2-BR	65 m ² ... 70 m ²	2	2%
LVL 11			
1-BR	46 m ² ... 50 m ²	6	6%
2-BR	66 m ² ... 71 m ²	2	2%
3-BR	87 m ²	1	1%
		96	100%

UNIT MIX			
NAME	AVERAGE AREA	COUNT	% BY COUNT

1-BR	46 m ² ... 62 m ²	60	63%
2-BR	65 m ² ... 71 m ²	35	36%
3-BR	87 m ²	1	1%
		96	100%

SELLABLE VS NON-SELLABLE				
NAME	COUNT	AREA (SM)	AREA (SF)	%

NON-CALCULATED				
BICYCLE PARKING	1	46.38 m ²	499 ft ²	1%
BULKY WASTE	1	10.93 m ²	118 ft ²	0%
CORRIDOR	2	80.06 m ²	862 ft ²	1%
ELEC	2	7.40 m ²	80 ft ²	0%
ELEVATORS	2	34.56 m ²	372 ft ²	1%
MECH	3	79.15 m ²	852 ft ²	1%
MECH/ELEC	1	70.51 m ²	759 ft ²	1%
STAIRS	2	42.57 m ²	458 ft ²	1%
NON-CALCULATED: 14	14	371.56 m ²	3,999 ft ²	5%
NON-SELLABLE				
BICYCLE PARKING	1	41.92 m ²	451 ft ²	1%
CACF	1	8.24 m ²	89 ft ²	0%
CORRIDOR	10	423.81 m ²	4,562 ft ²	6%
ELEC	11	33.34 m ²	359 ft ²	0%
ELEVATORS	11	156.54 m ²	1,685 ft ²	2%
INDOOR AMENITY	1	87.22 m ²	939 ft ²	1%
LOBBY	1	59.22 m ²	637 ft ²	1%
MECH	11	49.66 m ²	535 ft ²	1%
OFFICE	1	6.20 m ²	67 ft ²	0%
STAIRS	11	225.28 m ²	2,425 ft ²	3%
VESTIBULE	1	14.64 m ²	158 ft ²	0%
NON-SELLABLE: 60	60	1,106.07 m ²	11,906 ft ²	16%
SELLABLE				
1-BR	60	2,850.75 m ²	30,685 ft ²	42%
2-BR	35	2,378.36 m ²	25,600 ft ²	35%
3-BR	1	87.11 m ²	938 ft ²	1%
SELLABLE: 96	96	5,316.22 m ²	57,223 ft ²	78%
	170	6,793.85 m ²	73,128 ft ²	100%

LEVEL	SELLABLE AREA CATEGORIES		SELLABLE AREA	
	Area	AREA m2	Area	AREA m2

BASEMENT	0 m ²	0.00 m ²	0 m ²	0.0 m ²
LVL 1	0 m ²	0.00 m ²	0 m ²	0.0 m ²
LVL 2	504 m ²	503.62 m ²	504 m ²	503.6 m ²
LVL 3-9	554 m ²	554.20 m ²	554 m ²	554.2 m ²
LVL 4	554 m ²	554.29 m ²	554 m ²	554.3 m ²
LVL 5	555 m ²	554.67 m ²	555 m ²	554.7 m ²
LVL 6	554 m ²	554.29 m ²	554 m ²	554.3 m ²
LVL 7	554 m ²	554.29 m ²	554 m ²	554.3 m ²
LVL 8	554 m ²	554.20 m ²	554 m ²	554.2 m ²
LVL 9	554 m ²	554.20 m ²	554 m ²	554.2 m ²
LVL 10	420 m ²	420.25 m ²	420 m ²	420.2 m ²
LVL 11	512 m ²	512.20 m ²	512 m ²	512.2 m ²
T/O ROOF DECK	0 m ²	0.00 m ²	0 m ²	0.0 m ²
: 143	5,316 m ²	5316.22 m ²	5,316 m ²	5316.2 m ²
Grand total: 143	5,316 m ²	5316.22 m ²	5,316 m ²	5316.2 m ²

RENTABLE AREA

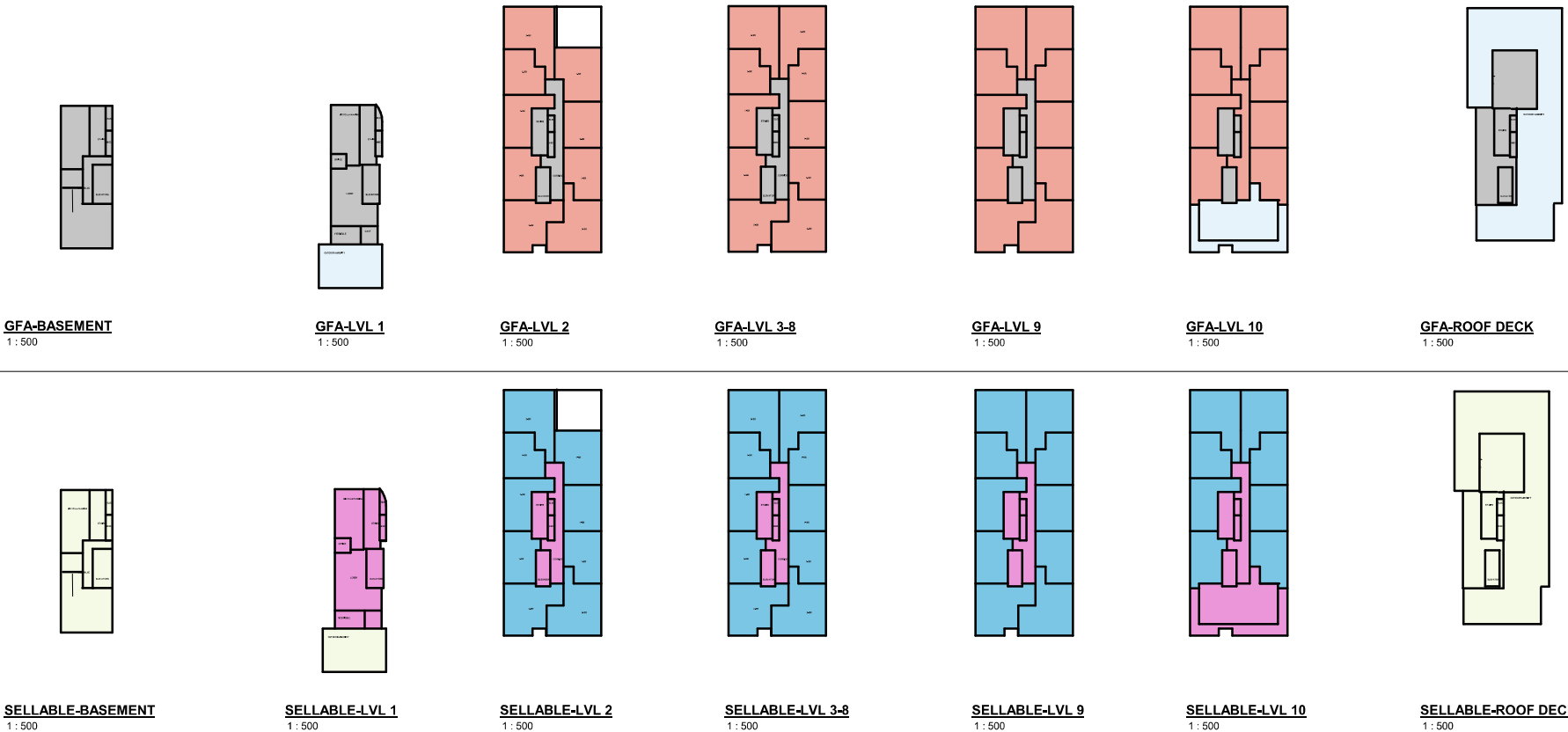
GFA LEGEND

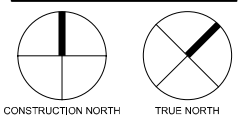
- AMENITY
- GFA
- NON-GFA

GROSS FLOOR AREA (GFA)

Room Legend

- NON-CALCULATED
- NON-SELLABLE





50 High Street Affordable

50 High Street E,
Mississauga

SHEET NAME

OVERALL FLOOR PLANS I

START DATE

DRAWN BY

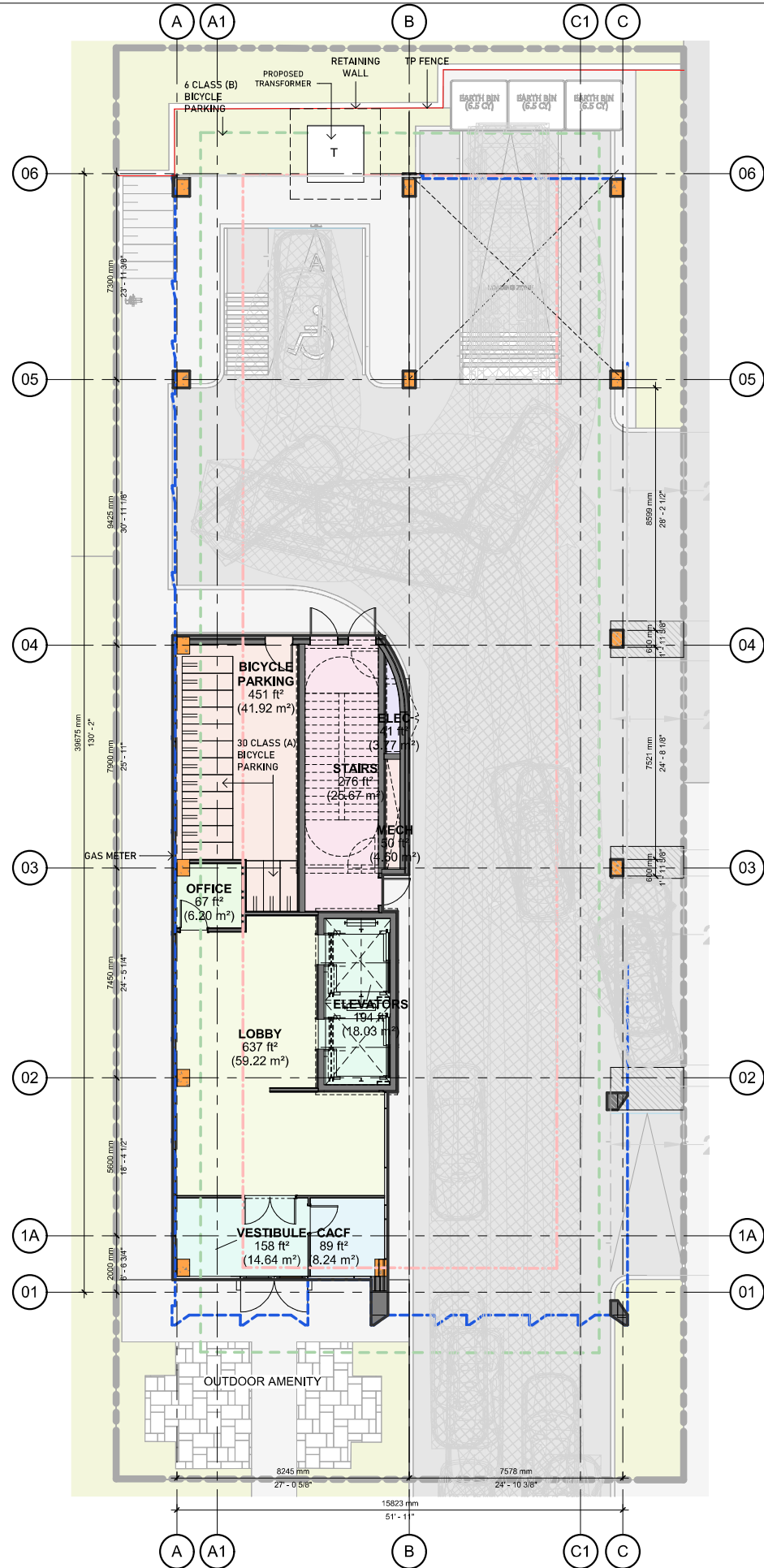
CHECKED BY

SCALE

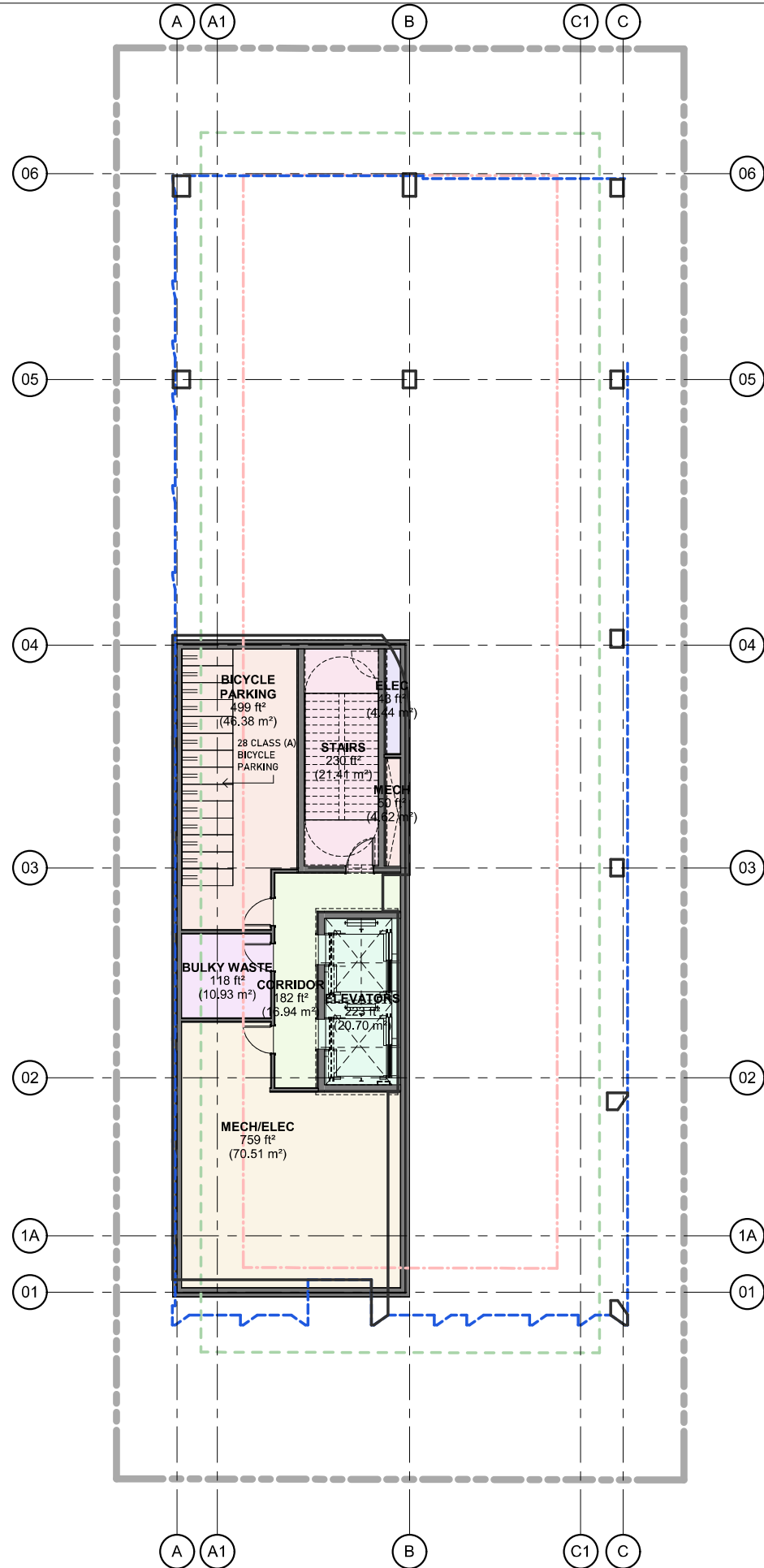
PROJECT NO.

DRAWING

A100



1 GROUND FLOOR PLAN
A100 1 : 100



4 BASEMENT
A100 1 : 100

UNIT MIX - PER FLOOR			
NAME	AVERAGE AREA	COUNT	% BY COUNT

LVL 2			
1-BR	46 m² ... 62 m²	6	6%
2-BR	66 m² ... 71 m²	3	3%
LVL 3-9			
1-BR	46 m² ... 48 m²	6	6%
2-BR	65 m² ... 70 m²	4	4%
LVL 4			
1-BR	46 m² ... 48 m²	6	6%
2-BR	65 m² ... 70 m²	4	4%
LVL 5			
1-BR	46 m² ... 48 m²	6	6%
2-BR	65 m² ... 71 m²	4	4%
LVL 6			
1-BR	46 m² ... 48 m²	6	6%
2-BR	65 m² ... 70 m²	4	4%
LVL 7			
1-BR	46 m² ... 48 m²	6	6%
2-BR	65 m² ... 70 m²	4	4%
LVL 8			
1-BR	46 m² ... 48 m²	6	6%
2-BR	65 m² ... 70 m²	4	4%
LVL 9			
1-BR	46 m² ... 48 m²	6	6%
2-BR	65 m² ... 70 m²	4	4%
LVL 10			
1-BR	46 m² ... 49 m²	6	6%
2-BR	65 m² ... 70 m²	2	2%
LVL 11			
1-BR	46 m² ... 50 m²	6	6%
2-BR	66 m² ... 71 m²	2	2%
3-BR	87 m²	1	1%
		96	100%

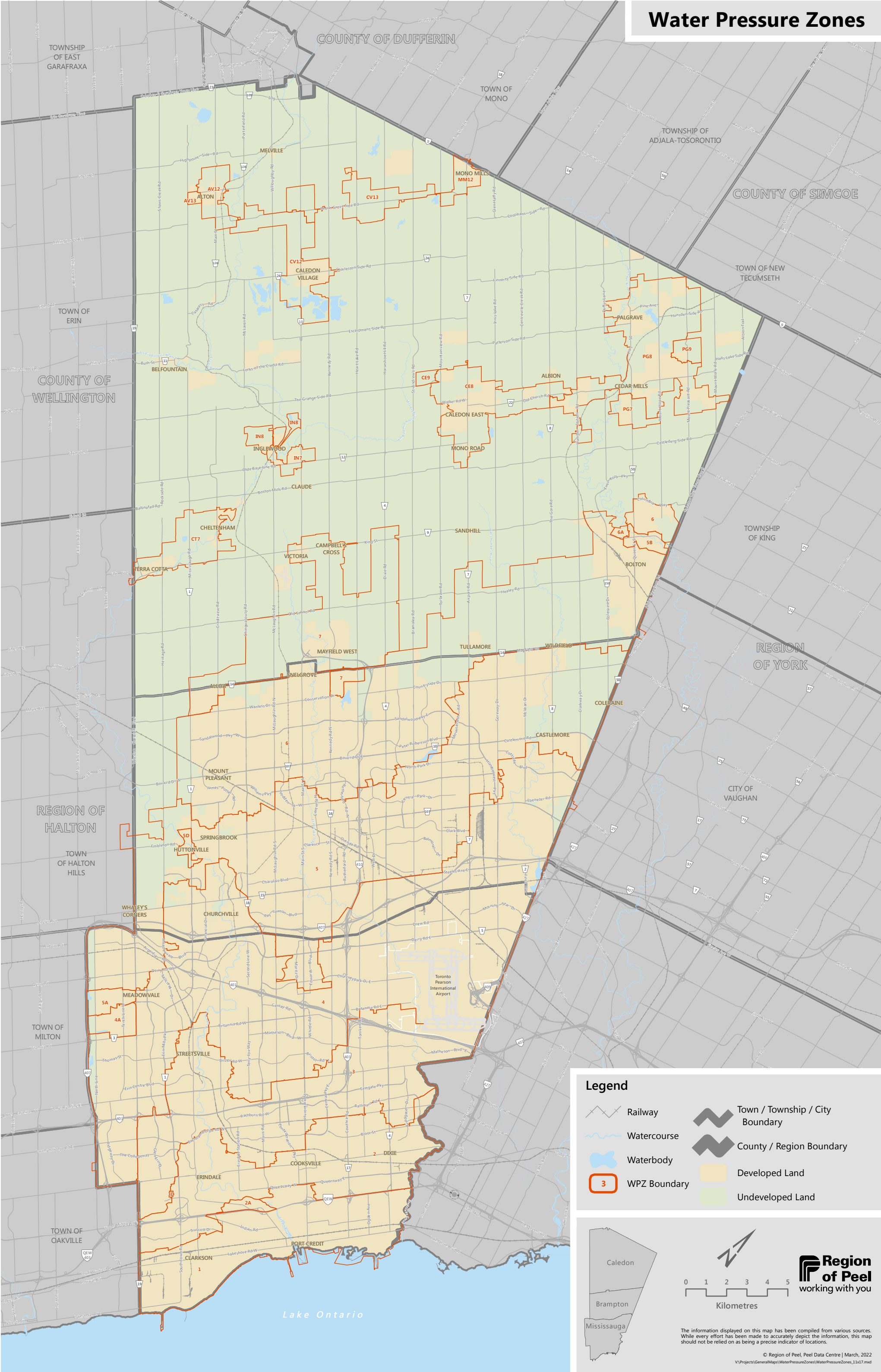
UNIT MIX			
NAME	AVERAGE AREA	COUNT	% BY COUNT

1-BR	46 m² ... 62 m²	60	63%
2-BR	65 m² ... 71 m²	35	36%
3-BR	87 m²	1	1%
		96	100%

APPENDIX B

Water Servicing Calculations

Water Pressure Zones



Existing Water Demand

Site Area (m²) : 1022.21

Site Area (ha): 0.10

Residential

Residential: Small Apartments

Housing Type	No. of Units	Population Density	Population
1 Bedroom	11	1.7	19

Check:

If the proposed population equivalent for apartments is greater than 475 person/hectare, then the population equivalent used for design shall be calculated based on a density of 2.7 persons per unit using the equation below:

$$\frac{2.7 \text{ppu} \times \text{No. Units}}{\text{Area}} = \text{persons/hectare}$$

$$\frac{2.7 \times 11}{0.1} = 297 \text{ persons/hectare}$$

Therefore, use a proposed population equivalence of 1.7 persons/unit.

Design Parameters

Residential Average Demand (L/capita/d)

280

Average Daily Demand = 5236.00 L/day

Average Daily Demand = 0.06 L/s

Peaking Factors

Max. Day = 2.00

Peak Hour = 3.00

Notes & References

Region of Peel - Linear Wastewater Standards, Chapter 2 - (R 1.0, 2023/03/29)

Region of Peel - Linear Wastewater Standards, Chapter 2 - (R 1.0, 2023/03/29)

Region of Peel - Linear Infrastructure - Watermain Design Criteria - (Rev. June 2010)

Type of Use	Average Daily Water Demand (L/s)	Maximum Day Demand (L/s)	Peak Hourly Demand (L/s)
Residential	0.06	0.12	0.18
Total	0.06	0.12	0.18

Proposed Water Demand

Site Area (m²) : 1022.21
 Site Area (ha): 0.10

Residential

Residential			
Housing Type	No. of Units	Population Density	Population
1 Bedroom	60	2.7	162
2 Bedroom	35	2.7	95
3 Bedroom	1	2.7	3
Total	96		259

Check:

If the proposed population equivalent for apartments is greater than 475 person/hectare, then the population equivalent used for design shall be calculated based on a density of 2.7 persons per unit using the equation below:

$$\frac{2.7 \text{ppu} \times \text{No. Units}}{\text{Area}} = \text{persons/hectare}$$

$$\frac{2.7 \times 96}{0.1} = 2592 \text{ persons/hectare}$$

Therefore, use a proposed population equivalence of 2.7 persons per unit.

Design Parameters

Residential Average Demand (L/capita/d)
280

Average Daily Demand = 72576.00 L/day
 Average Daily Demand = 0.84 L/s

Peaking Factors

Max. Day = 2.00
 Peak Hour = 3.00

Type of Use	Average Daily Water Demand (L/s)	Maximum Day Demand (L/s)	Peak Hour Demand (L/s)
Residential	0.84	1.68	2.52
Total	0.84	1.68	2.52

Notes & References

Region of Peel - Linear Wastewater Standards, Chapter 2 - (R 1.0, 2023/03/29)

Region of Peel - Linear Wastewater Standards, Chapter 2 - (R 1.0, 2023/03/29)

Region of Peel - Linear Infrastructure - Watermain Design Criteria - (Rev. June 2010)



Water Supply for Public Fire Protection - 2020
Fire Underwriters' Survey
Part II - Guide for Determination of Required Fire Flow

1. An estimate of fire flow required for a given area may be determined by the formula:

$$F = 220 * C * \sqrt{A}$$

where

F = the required fire flow in litres per minute

C = coefficient related to the type of construction:

- = 1.5 for wood frame construction (structure essentially all combustible)
- = 1.0 for ordinary construction (brick or other masonry walls, combustible floor and interior)
- = 0.8 for non-combustible construction (unprotected metal structural components)
- = **0.6** for fire-resistive construction (fully protected frame, floors, roof)

A = The total floor area in square metres (including all storeys, but excluding basements at least 50 percent below grade) in the building considered.

Proposed Buildings

FOURTH FLOOR	596.67 sq.m
FIFTH FLOOR	597.05 sq.m
SIXTH FLOOR	596.67 sq.m

Area = 895.39 sq.m

Area of the largest floor plus 25% of each of the two immediately adjoining floors.

C = **0.6**

Therefore F = **3,950 L/min**

Rounded to nearest 1000 L/min: 4,000 L/min

2. Values obtained in No. 1 may be reduced by as much as 25% for occupancies having low contents fire hazard or may be increased by up to 25% surcharge for occupancies having a high fire hazard.

Credits		Charges	
Non-Combustible	-25%	Free Burning	15%
Limited Combustible	-15%	Rapid Burning	25%
Combustible	0%		

Occupancy Category: **-15%**
-600 L/min Reduction
3,400 L/min

Note: Fire flow shall not be less than 2,000 L/min

3. Sprinklers - The value obtained in No. 2 above may be reduced by up to 50% for complete automatic sprinkler protection. The credit for the system will be a maximum of 30% for an adequately designed system conforming to NFPA 13 and other NFPA sprinkler standards.

Automatic Sprinkler Protection: **50%** (Credit)
NFPA 13 or Equivalent: 30% (Credit)
No sprinkler protection: 0% (Null)
-1,700 L/min Reduction

4. Exposure - To the value obtained in No. 2, a percentage should be added for structures exposed within 45 metres by the fire area under consideration. The percentage shall depend upon the height, area, and construction of the building(s) being exposed, the separation, openings in the exposed building(s), the length and height of exposure, the provision of automatic sprinklers and/or outside sprinklers in the building(s) exposed, the occupancy of the exposed building(s) and the effect of hillside locations on the possible spread of fire.

Separation	Charge
0 to 3 m	25%
3.1 to 10 m	20%
10.1 to 20 m	15%
20.1 to 30 m	10%
Greater than 30 m	0%

Direction	Distance (m)	Charge (%)	Surcharge (L/s)
E	11.5	15%	510
W	14.5	15%	510
N	>30	0%	-
S	>30	0%	-
			1,020 L/min surcharge

Determine the required fire flow for the proposed development:

No. 1	3,950
No. 2	-600 reduction
No. 3	-1,700 reduction
No. 4	1,020 surcharge

Required Fire Flow: 2,670 L/min
Rounded to nearest 1000 L/min: 3,000 L/min
Minimum Required Fire Flow: 4,800 L/min
Convert to L/s: 80.0 L/s

JP Labonte

From: Hosam Asem <hasem@chamberlainipd.com>
Sent: July 31, 2025 2:47 PM
To: JP Labonte
Cc: Menna Ali; Steve Mauro; Adrian Mauro; Tony De Franco; Christina Borowiec; Tim Neeb; Julie Scott
Subject: Re: CFC 2880-7436: 50 High Street East - FUS Confirmation Letter

Hi Labonte,

Please find below the requested information for the FUS categories :

- **Construction Type:** Fire-Resistive Construction (a)

A building design where all structural elements, walls, arches, floors, and roofs are constructed with a minimum 2-hour fire resistance rating, and all materials used in the construction of the structural elements are non-combustible.

- **Occupancy Category:** Limited Combustible Content
- **Sprinkler Type:** Fully Supervised Automatic Sprinkler System

Please let me know if you need any additional details

Kind regards,

Hossam Asem,

Designer

CHAMBERLAIN ARCHITECT SERVICES LIMITED

shaping your world

✉: hasem@chamberlainipd.com

🌐: www.chamberlainIPD.com

From: Menna Ali <mali@chamberlainipd.com>
Sent: July 30, 2025 10:13 AM
To: Hosam Asem <hasem@chamberlainipd.com>
Subject: Fw: CFC 2880-7436: 50 High Street East - FUS Confirmation Letter

Menna Ali,

Designer

CHAMBERLAIN ARCHITECT SERVICES LIMITED
shaping your world

✉: mali@chamberlainipd.com

🌐: www.chamberlainIPD.com

From: JP Labonte <jplabonte@cfcrozier.ca>

Sent: Wednesday, July 30, 2025 9:58 AM

To: Adrian Mauro <amauro@chamberlainIPD.com>; Steve Mauro <SMAuro@chamberlainipd.com>; Menna Ali <mali@chamberlainipd.com>

Cc: Tony De Franco <tony@sajeckiplanning.com>; Christina Borowiec <christina@sajeckiplanning.com>; Tim Neeb <tim@mahoganymanagement.com>; Julie Scott <jscott@cfcrozier.ca>

Subject: CFC 2880-7436: 50 High Street East - FUS Confirmation Letter

Hi all,

Can you please provide us a letter confirming the FUS categories used for the design of the building? Please see below for what we'll require on the letter:

1. Confirm the construction type of the building: Fire-Resistive Construction (a) or Non-Combustible Construction (b)
 - a. A building design where all structural elements, walls, arches, floors, and roofs are constructed with a min. 2-hr fire resistance rating, and all materials used in the construction of the structural elements etc. are constructed with non-combustible materials.
 - b. A building design where all structural elements, walls, arches, floors, and roofs are constructed with a min. 1-hr fire resistance rating and are constructed with non-combustible materials.
2. Confirm the occupancy category: Non-Combustible Content or Limited Combustible Content
3. Confirm the sprinkler type: Fully Supervised Automatic Sprinkler System, NFPA 13 or equivalent, or no sprinkler system

Please note that we'll need this letter asap before the expected submission date for this Friday to include in our FSSWM report.

Let me know if you have any questions and/or concerns with the above.

Thank you!

JP Labonte

Engineering Intern, Land Development

Office: 905.876.7158

Collingwood | Milton | Toronto | Bradford | Guelph

Learn how we've strengthened our position as a total build partner.



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Hydrant Flow Test Report

Residual Hydrant Number _____

Date: 11-Jun-25 Time: 10:15 AM Operator: Colin Powell
 Witness: Region of Peel

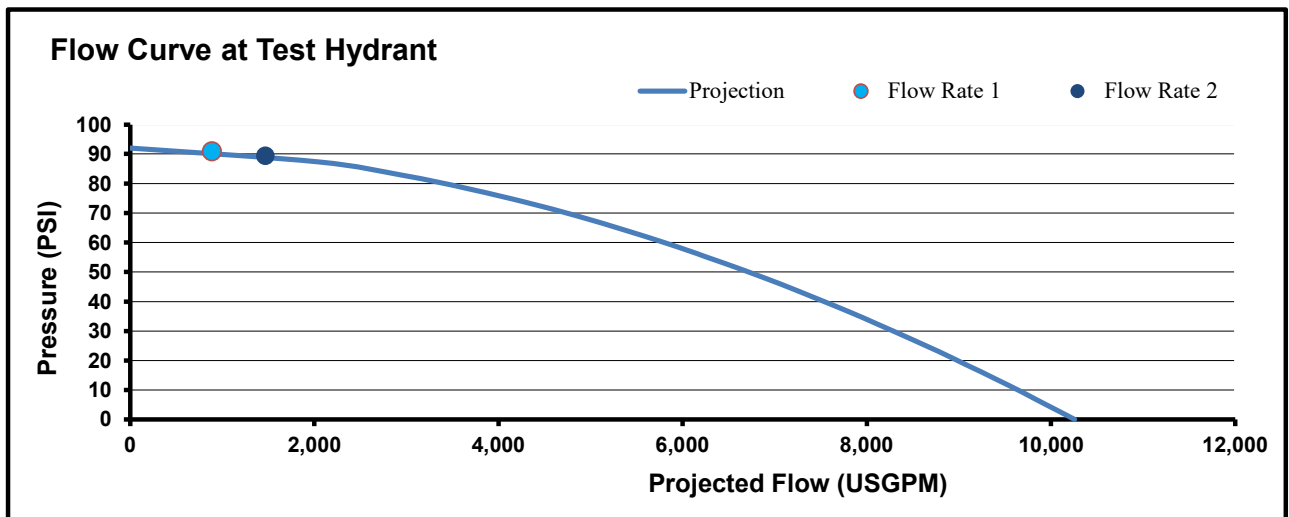
Residual Test Hydrant:	7 Helene Street North (at High St E)
Hydrant Number:	NFPA Colour Code: CLASS AA - BLUE
Owner:	Region of Peel

STATIC PRESSURE:	92 psi	634 kPa	Pressure Drop
RESIDUAL PRESSURE 1:	91 psi	627 kPa	1.1%
RESIDUAL PRESSURE 2:	89.5 psi	617 kPa	2.7%

Flow Hydrants:		Hydrant Number	
A	80 High Street East (on Ann Street)		
B			
C			

Hydrant No.	Flow Device	Outlet Dia. (in.)	Flow Rate 1		Flow Rate 2	
			Reading (psi)	(USGPM)	Reading (psi)	(USGPM)
A	Pitot	2.5	32	882	22	732
A	Pitot	2.5		0	22	732
A	HoseMonster	4"		0		
Total Flow (USGPM)			882		1463	
Total Flow (L/second)			56		92	
Available Flow At Test Hydrant at 20 psi			8,885 USGPM		8,983 USGPM	
			561 L/second		567 L/second	

Average Projection at 20 PSI	8,934 USGPM
------------------------------	-------------



Comments/Discrepancies/Diagram:

APPENDIX C

Sanitary Servicing Calculations

Existing Sanitary Design Flow

Site Area (m²) : 1022.21
 Site Area (ha): 0.10

Residential

Residential: Small Apartments

Housing Type	No. of Units	Population Density	Population
1 Bedroom	11	1.7	19

Check:

If the proposed population equivalent for apartments is greater than 475 person/hectare, then the population equivalent used for design shall be calculated based on a density of 2.7 persons per unit using the equation below:

$$\frac{2.7 \text{ppu} \times \text{No. Units}}{\text{Area}} = \text{persons/hectare}$$

$$\frac{2.7 \times 11}{0.1} = 297 \text{ persons/hectare}$$

Therefore, use a proposed population equivalence of 1.7 persons/unit.

Design Parameters

Average Residential Flow (L/capita/d)

290

Infiltration Flow (L/ha/s): 0.26

Type of Use	Average Daily Flow (L/s)	Harmon Peaking Factor	Peak Flow (L/s)	Infiltration Flow (L/s)	Total Peak Flow (L/s)
Residential	0.06	4.00	0.25	0.03	0.28
Total					0.28

Equations:

Harmon Peaking Factor

$$M = 1 + (14 / (4 + (P/1000)^{0.5})), \text{ Min}=2, \text{ Max}=4$$

Notes & References

Region of Peel - Linear Wastewater Standards, Chapter 2 - (R 1.0, 2023/03/29)

Region of Peel - Linear Wastewater Standards, Chapter 2 - (R 1.0, 2023/03/29)

Region of Peel - Linear Wastewater Standards, Chapter 2 - (R 1.0, 2023/03/29)

Proposed Sanitary Design Flow

Site Area (m²) : 1022.21
 Site Area (ha): 0.10

Residential

Residential			
Housing Type	No. of Units	Population Density	Population
1 Bedroom	60	2.7	162
2 Bedroom	35	2.7	95
3 Bedroom	1	2.7	3
Total	96		259

Check:

If the proposed population equivalent for apartments is greater than 475 person/hectare, then the population equivalent used for design shall be calculated based on a density of 2.7 persons per unit using the equation below:

$$\frac{2.7 \text{ppu} \times \text{No. Units}}{\text{Area}} = \text{persons/hectare}$$

$$\frac{2.7 \times 96}{0.1} = 2592 \text{ persons/hectare}$$

Therefore, use a proposed population equivalence of 2.7 persons per unit.

Design Parameters

Average Residential Flow (L/capita/d)
290

Infiltration Flow (L/ha/s): 0.26

Type of Use	Average Daily Flow (L/s)	Harmon Peaking Factor	Peak Flow (L/s)	Infiltration Flow (L/s)	Total Peak Flow (L/s)
Residential	0.87	4.00	3.48	0.03	3.51
Total					3.51

Equations:

Harmon Peaking Factor

$$M = 1 + (14 / (4 + (P/1000)^{0.5})), \text{ Min}=2, \text{ Max}=4$$

Notes & References

Region of Peel - Linear Wastewater Standards, Chapter 2 - (R 1.0, 2023/03/29)

Region of Peel - Linear Wastewater Standards, Chapter 2 - (R 1.0, 2023/03/29)

Region of Peel - Linear Wastewater Standards, Chapter 2 - (R 1.0, 2023/03/29)

APPENDIX D

Stormwater Management Calculations



CROZIER
CONSULTING ENGINEERS

Project: 50 High Street East
Project No.: 2880-7436
Created By: JPL
Checked By: JS
Date: 2025-08-01

Modified Rational Calculations - Input Parameters

Time of Concentration: $T_c = 15.00$ mins
Storm Data: City of Mississauga

Return Period	A	B	C	I (mm/hr)
10-Yr	1010.0	4.6	0.780	99.166
100-Yr	1450.0	4.9	0.780	140.690

Pre-Development Conditions

Land Type	Area (ha)	Area (m ²)	C	Weighted Average C
Catchment 100 to Storm Sewer along High Street East				
Pervious	0.02	190.00	0.25	0.05
Impervious	0.05	542.21	0.90	0.48
Roof	0.03	290.00	0.90	0.26
Total Subcatchment	0.10	1022.21	-	0.78
Total Site	0.10	1022.21		

Post-Development Conditions

Land Type	Area (ha)	Area (m ²)	C	Weighted Average C
Catchment 200 to Stormwater Management Tank - Controlled to High Street East				
Pervious	0.01	109.68	0.25	0.03
Roof Pervious	0.01	80.00	0.25	0.02
Impervious	0.07	747.73	0.90	0.72
Total Subcatchment	0.09	937.41	-	0.77

Land Type	Area (ha)	Area (m ²)	C	Weighted Average C
Catchment 201 - Uncontrolled to High Street East				
Pervious	0.00	8.13	0.25	0.02
Impervious	0.01	76.67	0.90	0.81
Total Subcatchment	0.01	84.80	-	0.84
Total Site	0.10	1022.21		

Equations:

$$I = \frac{A}{(T_c + B)^A} C$$

$$Q = 0.0028 \cdot C \cdot I \cdot A$$



Project: 50 High Street East
Project No.: 2880-7436
Created By: JPL
Checked By: JS
Date: 2025-08-01

Modified Rational Method Calculations - Release Rates

Pre-Development

Catchment 100 to Storm Sewer along High Street East

Storm Event	C	I (mm/hr)	A (ha)	Adjustment Factor	Q_{pre100} (m ³ /s)	Q_{pre100} (L/s)
10-Yr	0.78	99.166	0.102	1.0	0.02	21.96

Allowable Release Rate to High Street East - 10 Year (L/s) = 21.96

Post-Development

Catchment 200 to Stormwater Management Tank - Controlled to High Street East

Storm Event	C	I (mm/hr)	A (ha)	Adjustment Factor	$Q_{post200}$ (m ³ /s)	$Q_{post200}$ (L/s)
100-Yr	0.77	140.690	0.094	1.25	0.04	35.22

Catchment 201 - Uncontrolled to High Street East

Storm Event	C	I (mm/hr)	A (ha)	Adjustment Factor	$Q_{post201}$ (m ³ /s)	$Q_{post201}$ (L/s)
100-Yr	0.84	140.690	0.008	1.25	0.003	3.47

Peak Flows (L/s)

Storm Event	Pre-Development to High Street East	Post-Development to High Street East				
	Q_{pre100}	Q_{target} (10-Yr)	$Q_{post200}$ (100-Yr)	$Q_{post201}$ (100-Yr)	$Q_{c.post}$	Q_{total} (100-Yr)
10-Yr	21.96	21.96	35.22	3.47	15.36	18.83

Equations:

Total Post-Development Flow (100-Year)
 $Q_{total} = Q_{post200} + Q_{post201}$



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Project: 50 High Street East

Project No.: 2880-7436

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Modified Rational Method Calculations - Control Orifice

Orifice Type =	tube	
Invert Elevation =	75.33	m
Diameter of Orifice =	75	mm
Area of Orifice (A) =	0.0044	sq.m
Orifice Coefficient (Cd) =	0.80	

Calculation of Head

Centroid Elevation =	75.37	m
Water Elevation =	76.33	m
Upstream Head*, (h) =	0.96	m

Controlled Discharge, $Q_{c.post}$ =	(Cd)(A)(2gh)^{0.5}
=	0.01536 m ³
=	15.36 L/s



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Project: 50 High Street East
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Modified Rational Method Calculations - 100-Year Detention Volume

Rainfall IDF Coefficients 100-Year

A = 1450.0
B = 4.90
C = 0.78

Rational Method Calculation

Area = 0.09 ha
Runoff Coefficient, C = 0.77
C*A = 0.07
Adjustment Factor 1.25
Time of Concentration, t_c = 15.0 min
Storm Duration Increment = 10.0 min
Constant Inflow (Infiltrated Stormwater) = 0.00 L/s
Uncontrolled Outflow = 0.00 L/s
Release Rate = 15.36 L/s

Storm Duration (min)	Rainfall Intensity (mm/hr)	Max. Runoff Flow (L/s)	Runoff Volume (m ³)	Released Volume (m ³)	Storage Volume (m ³)	Max. Storage Volume Required (m ³)
15.0	140.690	35.19	31.67	13.82	17.85	
25.0	102.410	25.62	38.42	18.43	19.99	20.0
35.0	81.773	20.45	42.95	23.04	19.92	
45.0	68.683	17.18	46.39	27.65	18.74	
55.0	59.563	14.90	49.17	32.25	16.91	
65.0	52.805	13.21	51.51	36.86	14.65	
75.0	47.575	11.90	53.55	41.47	12.08	
85.0	43.395	10.85	55.36	46.08	9.28	
95.0	39.967	10.00	56.98	50.68	6.30	
105.0	37.101	9.28	58.47	55.29	3.17	
115.0	34.665	8.67	59.83	59.90	0.00	
125.0	32.565	8.15	61.09	64.51	0.00	
135.0	30.735	7.69	62.27	69.11	0.00	
145.0	29.123	7.28	63.38	73.72	0.00	
155.0	27.693	6.93	64.42	78.33	0.00	



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Project: 50 High Street East
Project No: 2880-7436
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(100-Year) Tank Sizing

Tank Sizing

Required Active Detention Storage	20.0	m ³
Required Active Retention Storage	3.3	m ³
Top of Tank Elevation	76.43	masl
Tank Outlet Elevation	75.37	masl
Bottom of Tank Elevation	75.20	masl
100-Year HWL Elevation	76.33	masl
100-Year HWL Depth	1.00	m
SWM Tank Dimensions		
Tank Area	20.5	m ²
Provided 100-Year Detention Storage	20.5	m ³
Provided Retention Storage	3.5	m ³

Water Quality Calculation - TSS Removal

Catchment 200 - Upstream of Stormwater Management Tank

Land Type	Area (m ²)	Water Quality Target (%)	% of Total Development Area	TSS Removal Credit (%)	Total TSS Removal (%)
<i>Pervious</i>	109.68	80.0%	10.7%	80.0%	8.6%
<i>Roof Pervious</i>	80.00		7.8%	80.0%	6.3%
<i>Impervious - treated by OGS</i>	747.73		73.1%	80.0%	58.5%
Sub-Total	937.41	-	91.7%	-	73.4%

Catchment 201 - Uncontrolled to High Street East

Land Type	Area (m ²)	Water Quality Target (%)	% of Total Development Area	TSS Removal Credit (%)	Total TSS Removal (%)
<i>Pervious</i>	8.13	80.0%	0.8%	80.0%	0.6%
<i>Impervious</i>	76.67		7.5%	80.0%	6.0%
Sub-Total	84.80	-	8.3%	-	6.6%

Total	1,022.21	-	100.0%	-	80.0%
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Project: 50 High Street East

Project No.: 2880-7436

Created By: JPL

Checked By: JS

Date: 2025-08-01

Water Balance Calculation - Initial Abstraction

Site Area = 1,022.21 m²

Required Average Annual Rainfall Depth = 5 mm

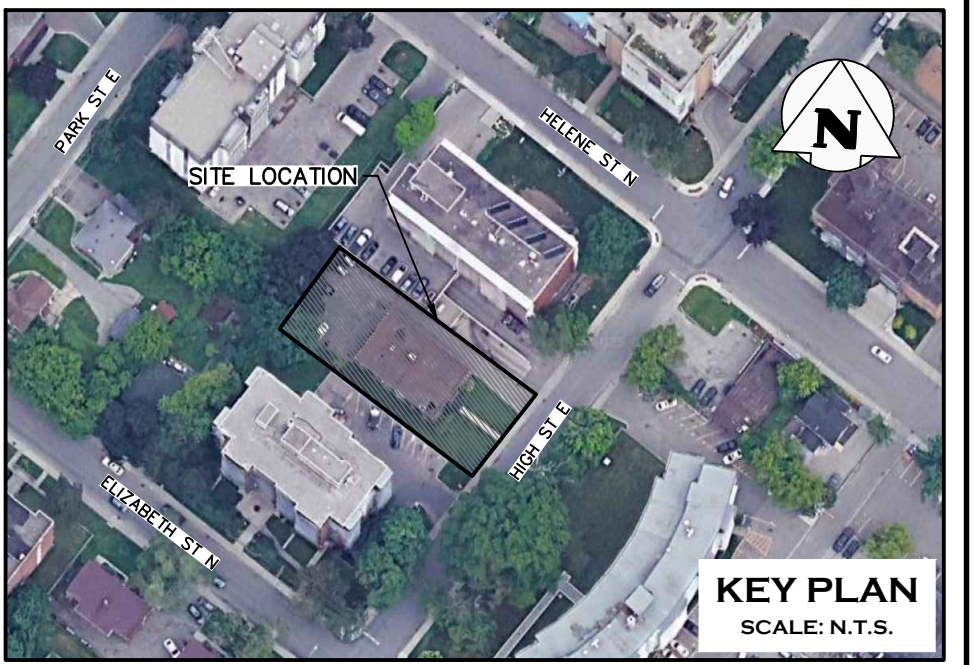
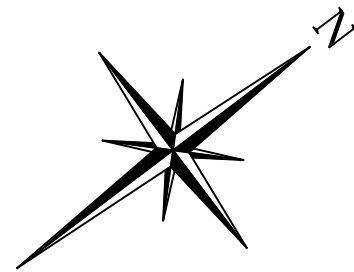
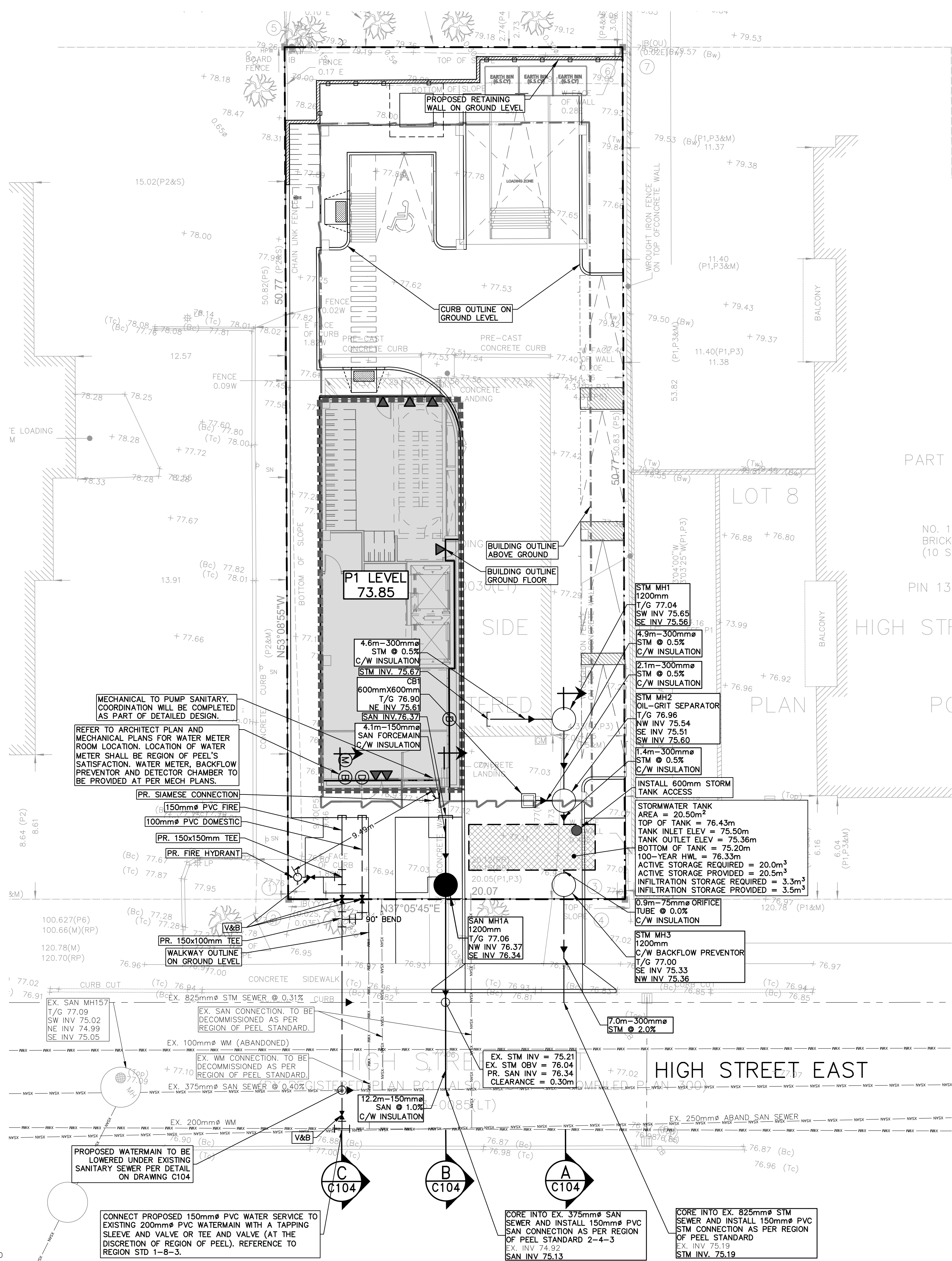
Total Required 5mm Retention Volume = 5.1 m³

Initial Abstraction Calculations:

*Initial abstraction values are provided by the City of Mississauga

Land Type	Area (m ²)	*Initial Abstraction (mm)	Volume (m ³)
Pervious	117.81	5	0.6
Roof Pervious	80.00	5	0.4
Impervious	824.40	1	0.8
Total	1022.21	-	1.8
Total Volume Captured On-Site Through Initial Abstraction =		1.8	m ³
Retention Volume Required On-Site =		3.3	m ³

DRAWINGS



LEGEND	
	PROPERTY LINE
	EXTENT OF UNDERGROUND
	EXISTING GAS MAIN
	EXISTING WATERMAIN
	EXISTING STORM SEWER & MANHOLE
	EXISTING SANITARY SEWER & MANHOLE
	PROPOSED STORM SEWER & MANHOLE
	PROPOSED SANITARY SEWER & MANHOLE
	PROPOSED WATER CONNECTION
	PROPOSED STM MANHOLE
	PROPOSED SAN MANHOLE
	PROPOSED WATER METER
	PROPOSED BACKFLOW PREVENTOR
	PROPOSED DETECTOR CHECK VALVE
	EXISTING FIRE HYDRANT & GATE VALVE
	PROPOSED STORM TANK
	PROPOSED SINGLE CATCHBASIN
	PROPOSED SIAMESE CONNECTION
	PROPOSED FIRE HYDRANT & GATE VALVE

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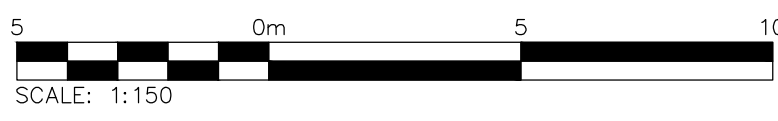
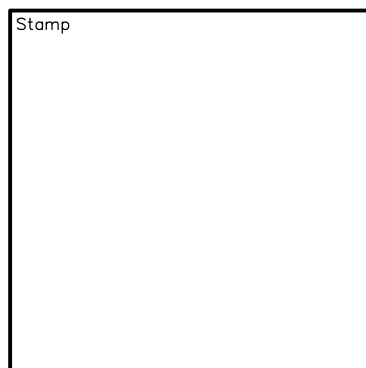
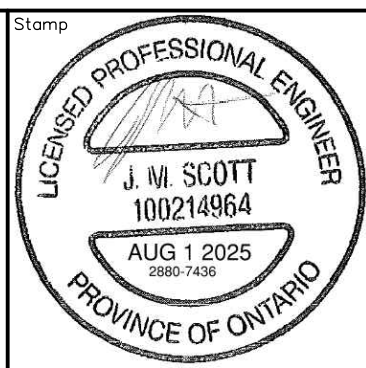
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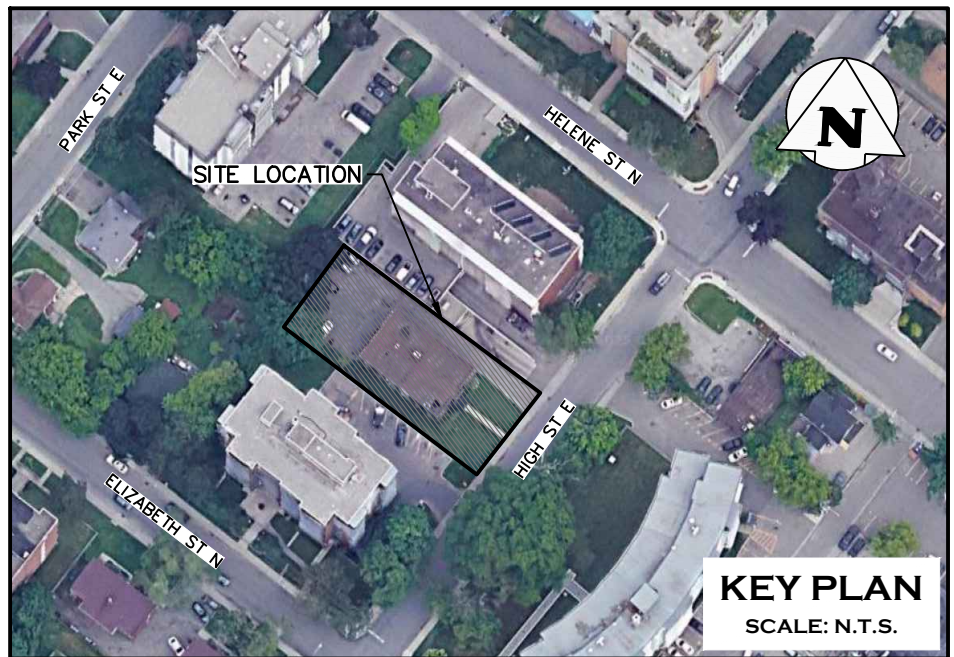
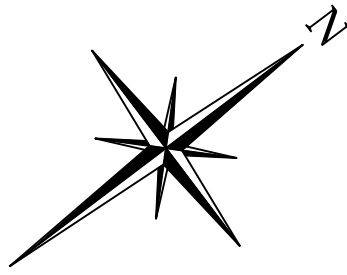
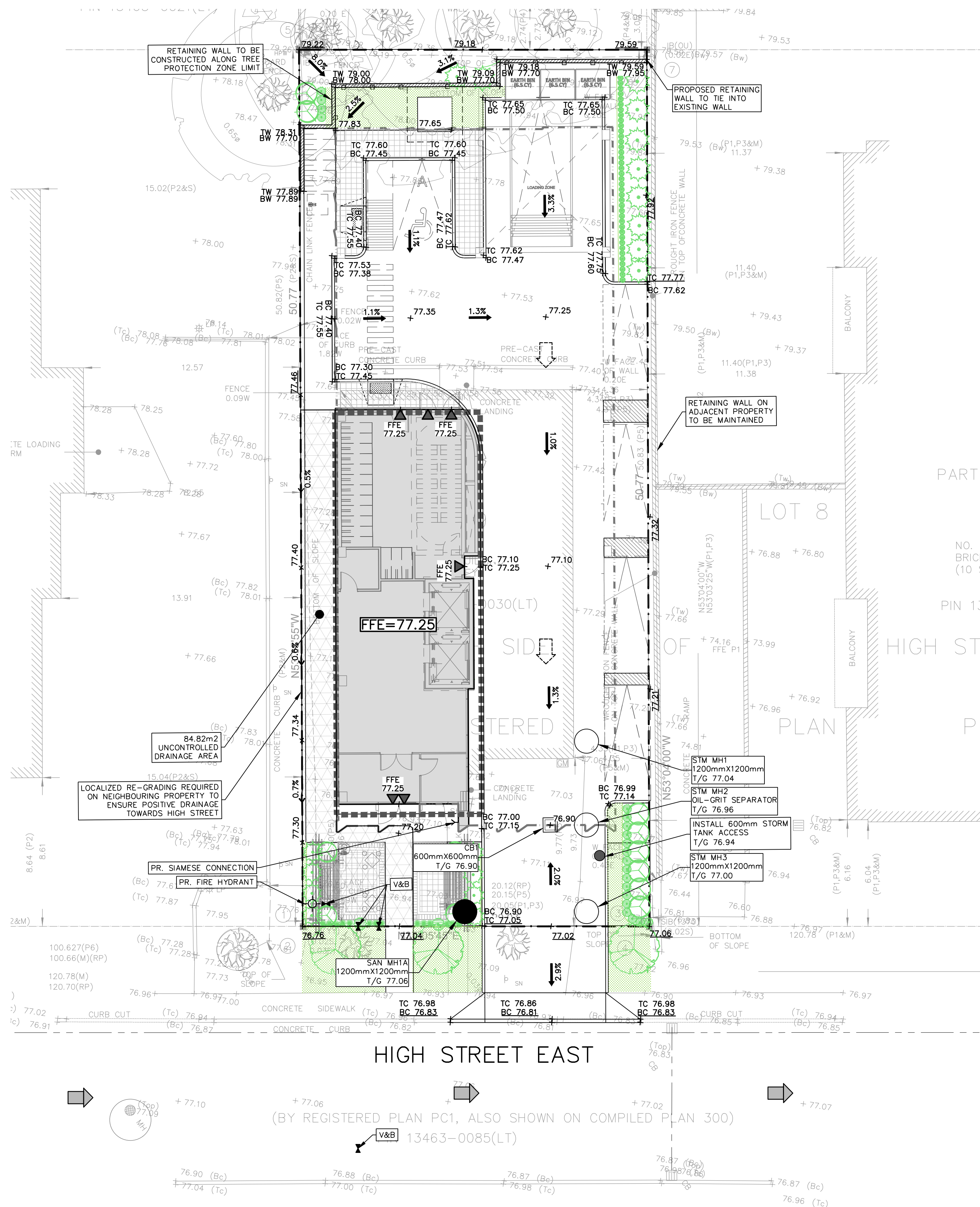
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Project
50 HIGH STREET EAST
CITY OF MISSISSAUGA

Drawing
SERVICING PLAN

				CROZIER CONSULTING ENGINEERS		211 YONGE STREET SUITE 600 TORONTO, ON, M5B 1M4 416 477-3392 T WWW.CFCROZIER.CA INFO@CFCROZIER.CA	
Drawn	A. A.	Design	J.P. L.	Project No.	2880-7436		
Check	J.S.	Check	J.S.	Scale	1:150	Dwg.	C 102





LEGEND	
	PROPERTY LINE
	EXTENT OF UNDERGROUND
	PROPOSED SWALE SLOPE
	EXTENT OF ABOVE GROUND
	TREE PROTECTION FENCE
	EXISTING GRADE
	PROPOSED GRADE
	PROPOSED GRADE (TO MATCH EXISTING)
	PROPOSED MINOR FLOW DIRECTION
	EXISTING FIRE HYDRANT & GATE VALVE
	EXISTING STORM MANHOLE
	EXISTING SANITARY MANHOLE
	PROPOSED STORM MANHOLE
	PROPOSED SANITARY MANHOLE
	EXISTING SINGLE / DOUBLE CATCHBASIN
	BUILDING ENTRANCE (PERSONNEL DOOR)
	PROPOSED OVERLAND FLOW DIRECTION
	EXISTING OVERLAND FLOW DIRECTION
	PROPOSED SINGLE CATCHBASIN
	PROPOSED FIRE HYDRANT & GATE VALVE
	UNCONTROLLED DRAINAGE AREA

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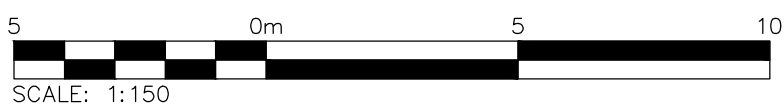
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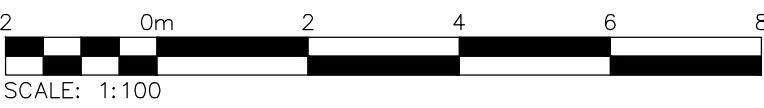
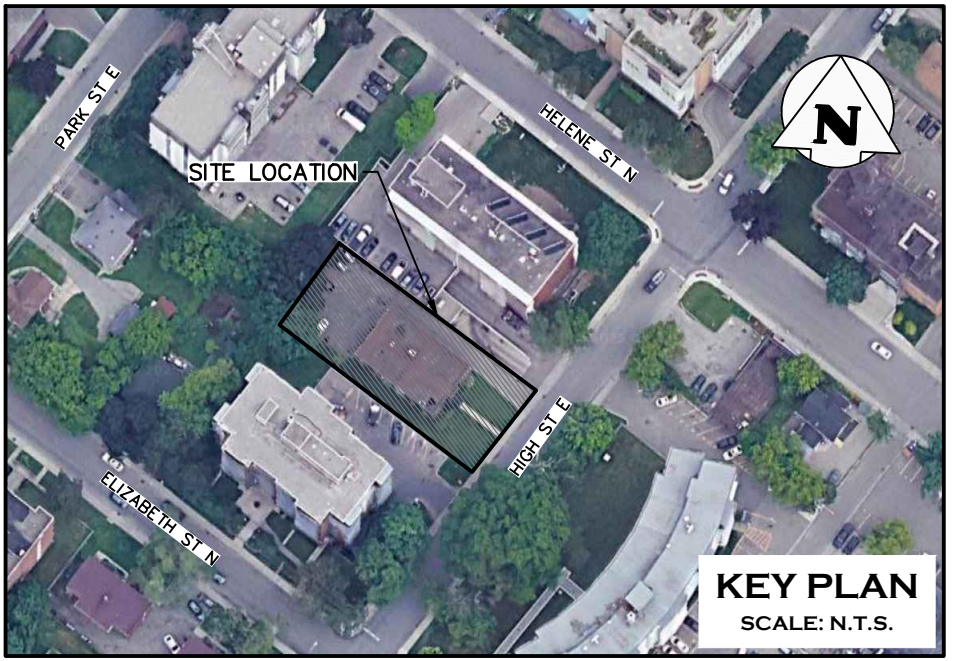
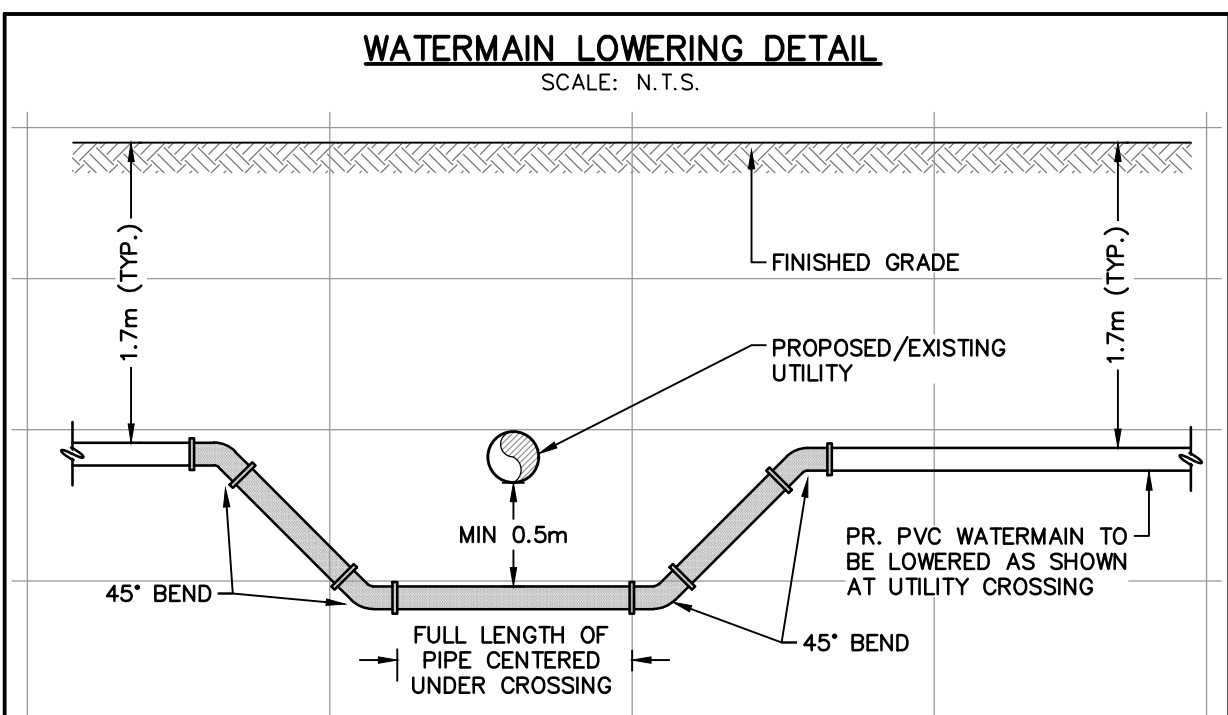
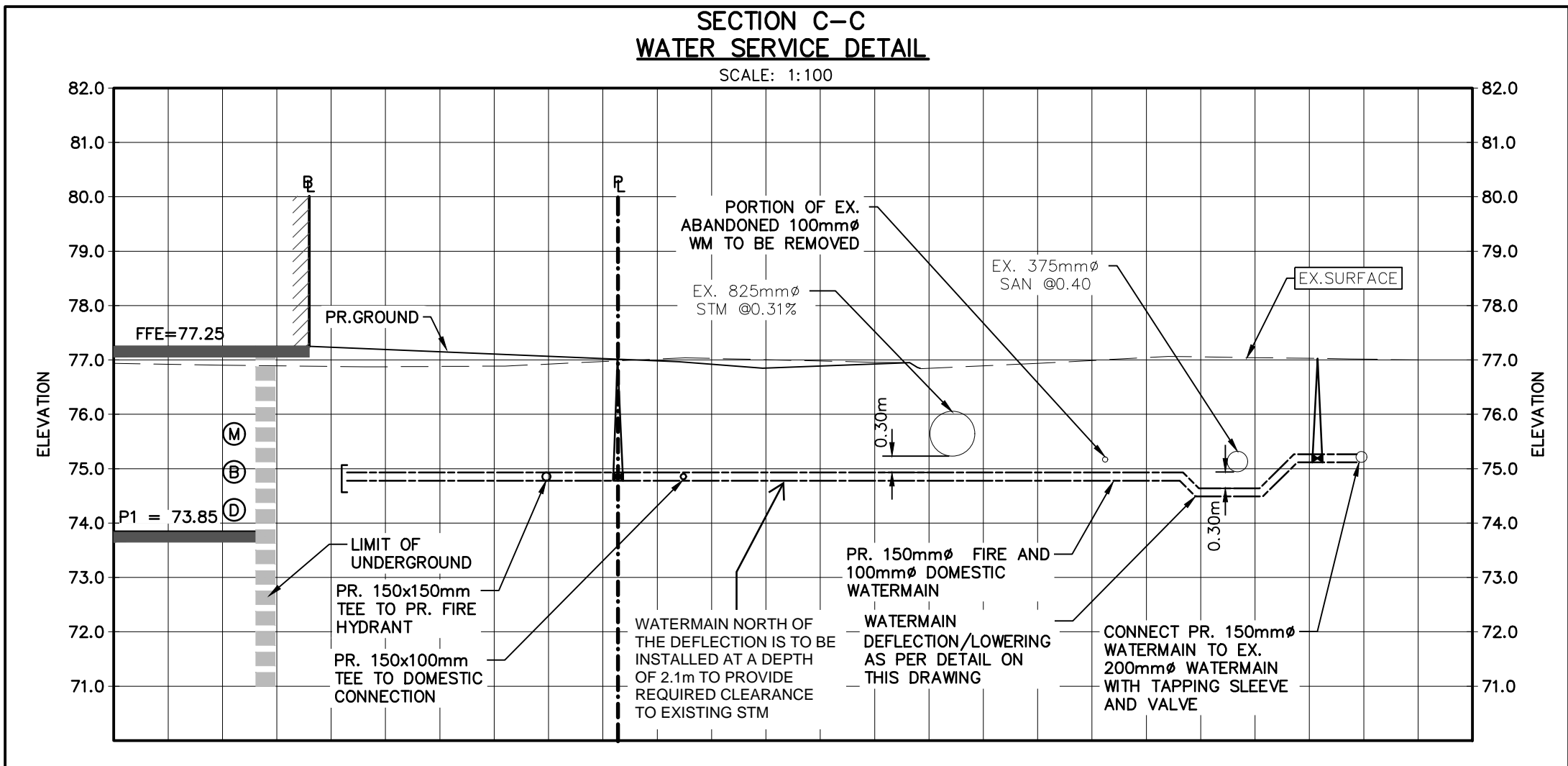
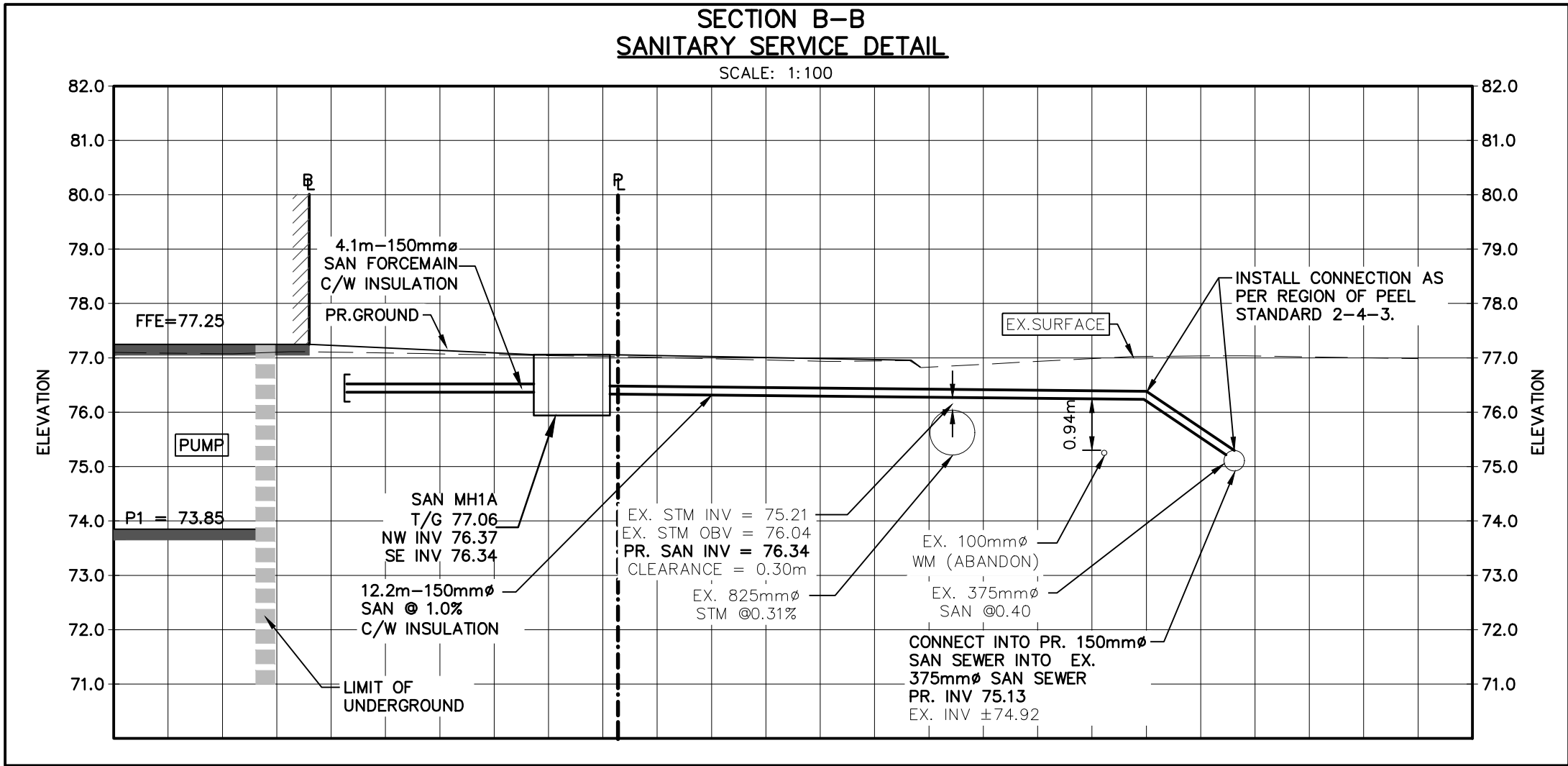
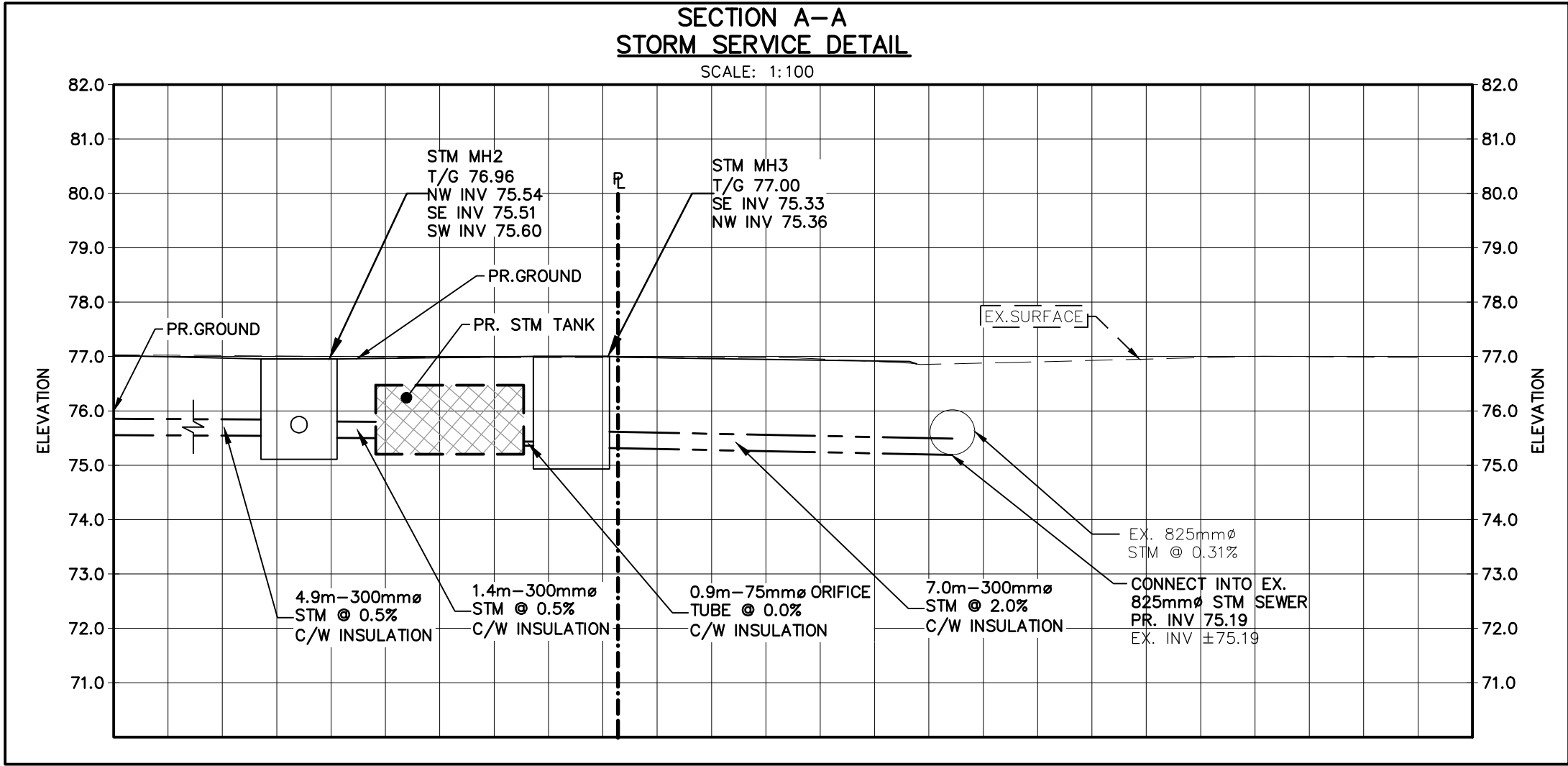
Project
50 HIGH STREET EAST
CITY OF MISSISSAUGA

Drawing
GRADING PLAN

Stamp

Drawn A.A. Design J.P.L. Project No. **2880-7436**
Check J.S. Check J.S. Scale 1:150 Dwg **C 103**





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Project
50 HIGH STREET EAST
CITY OF MISSISSAUGA

Drawing
SECTIONS PLAN

Stamp

Stamp



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				Dwg.	C 104